

NEBOSH International General Certificate in Occupational Safety and Health  
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SHEilds

## Element 1: Foundations in Health & Safety.

### Element 1: Foundations in Health & Safety.

#### Overall aims:

#### On completion of this Element, candidates will be able to:

- 1.1 - Outline the scope and nature of occupational health and safety.
- 1.2 - Explain the moral, social and economic reasons for maintaining and promoting good standards of health and safety in the workplace.
- 1.3 - Explain the role of national governments and international bodies in formulating a framework for the regulation of health and safety.

#### Sources of reference.

- Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001) can be downloaded free from [ILO web site](http://www.ilo.org/ilolex/index.htm).
- ILOLEX (ILO database of International Law) <http://www.ilo.org/ilolex/index.htm>.
- Occupational Health and Safety Assessment Series (OHSAS 18000): Occupational Health and Safety Management Systems (OHSAS 18001:2007 ISBN978 0 580 50802 8, OHSAS18002:2008 ISBN: 978 0 580 61674 7).
- Occupational Safety and Health Convention (C155) ILO <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C155>.
- [Occupational Safety and Health Recommendation \(R164\)](http://www.ilo.org/ilolex/cgi-lex/convde.pl?R164) ILO

#### Recommended tuition time:

Recommended tuition time for this unit is not less than 6 hours.

## 1.1 An Introduction to Health and Safety.

We frequently find ourselves being assured by business leaders and politicians that our health and the environment are being protected, that people wiser than ourselves have assessed the risk and concluded that some product or activity was "safe". Whether it is mad cow disease, genetically-modified organisms, new chemicals or drinking water, we are accustomed to being told that our worries are groundless. And in truth, that is what most of us want to believe.

Yet history has shown that humans are not all that good at assessing risks. Time after time, the hazards of new technologies and products have been poorly understood at first, underestimated when the knowledge started to become available, and responded to too late. Tobacco, asbestos, vinyl chloride, many pesticides, even technologies such as the automobile or the computer - all were initially proclaimed "safe" and all were strongly defended even after information on their risks became impossible to ignore.

In some of the disasters recounted below, a risk assessment had actually been done, but the wrong conclusions were reached. In other cases, there is no evidence that a risk assessment or any other attempt to judge the danger was made. However, they stand as examples of the general insufficiency of information before the fact and the fallibility of humans in understanding and utilising even that information which is available.

### The Quebec Bridge.

In Canada, it is a tradition for many engineers to wear an iron ring. The iron ring was intended to be a symbol of the engineers' pride in their profession, as well as a reminder of their fallibility and the consequences of their failures. The first iron rings were supposedly handed out in a ceremony at the University of Toronto in 1925. It was rumoured that the rings were made of iron from the

remains of the Quebec Bridge. One of the spans fell into the St. Lawrence river in 1907, killing 75 workers. The span had been lengthened without allowing for the increased strain. Then, in 1916, the centre span fell killing another 13 people.

### **Bhopal, India, 1984.**

Over 2,000 people died and thousands more were injured, many permanently, when piping systems failed at the Union Carbide pesticides plant. Methyl isocyanate was released when water was added to a storage tank. Among the [safety](#) systems that were under-engineered or out of service at the time were a refrigeration [system](#) (shut down for cost reasons), a high temperature alarm (set too high), a scrubber system (undersized and under repair) and the flare system (disconnected). Plant under-staffing was also implicated. The company suggested that the water may have been deliberately added by a disgruntled employee. However, low pay may also have contributed to the scale of the [disaster](#) in another way, by encouraging the establishment of a densely-populated shanty town adjacent to the plant. Warren Anderson, the chief executive of Union Carbide is still wanted by the Indian government to answer charges relating to the [incident](#).

### **The space shuttle Challenger.**

This blew up on January 28th, 1986 when 'O'-rings failed. Seven astronauts were killed. Design problems with the 'O'-rings had been identified prior to the disaster but had not been corrected. A risk assessment had concluded that the margin of safety was sufficient.

### **Chernobyl.**

In history's worst nuclear [accident](#), the Number 4 reactor in this ageing nuclear complex near Kiev in the Ukraine, exploded on April 26, 1986 at 1:21 AM. Staff had been conducting tests on the reactor's safety systems at the time of the [explosion](#). The reactor design had been criticised by nuclear experts from around the world. About thirty to forty times the [radioactivity](#) of the bombs dropped on Hiroshima and Nagasaki was released. The Soviet government did not at first admit to a problem, and local residents first heard of a problem in a news broadcast from Sweden. Thirty-one people died immediately, hundreds of thousands of people were relocated, entire cities were abandoned. Ten thousand people still live in Chernobyl and three million people still live in zones considered 'contaminated'. Unknown numbers of people will eventually die of [cancer](#) as a result of Chernobyl, possibly numbering into the hundreds of thousands. More worrying still, several reactors of the Chernobyl design are still in operation.

### **Egypt - Leptophos disaster.**

Many farmers and more than a thousand farm animals died of leptophos poisoning in Egypt. This chemical, manufactured in the United States by Velsicol and exported to about 30 countries between 1971 and 1976, had never been registered for domestic use in the U.S.A.

### **Exxon Valdez.**

On March 24, 1989, the Exxon Valdez ran aground in one of the most famous (although not the biggest) oil disasters in history. Almost 11,000,000 gallons of oil were spilled. The U.S. National Transportation Safety Board cited the probable causes of the grounding of the Exxon Valdez as:

- The failure of the third mate to properly manoeuvre the vessel because of fatigue and excessive workload;
- The failure of the master to provide a proper navigation [watch](#) because of impairment from alcohol;
- The failure Exxon to provide a fit master and a rested and sufficient crew for the Exxon Valdez;
- The lack of an effective vessel traffic service because of inadequate equipment and manning levels, inadequate personnel [training](#), and deficient management oversight;
- The lack of effective pilotage services.

However, many scientists and environmentalists had predicted this disaster since the large-scale shipping of oil in tankers up and down the coast of Alaska and British Columbia began in the

1970s. Because of the very narrow and changeable nature of the shipping channels, frequent severe weather conditions, difficult and often unguided navigation, they had demanded that the large Alaska oil tankers be designed with 'double bottoms' - a design in use in some other parts of the world. Their recommendation was rejected, in part due to risk assessments. The results of this [decision](#) were financial costs in the billions of dollars, incalculable environmental costs and the scapegoating of the captain. Exxon continues to deny liability and fights civil lawsuits totalling billions of US dollars, but has become fanatically obsessed with drug and alcohol testing of its employees. Meanwhile, oil continues to be shipped in an ever-ageing fleet of single-bottom tankers.

### **Hyatt Regency skywalk, Kansas City , Missouri, USA .**

When this two-level catwalk at the Hyatt Regency hotel collapsed in 1981, 111 fatalities resulted and several engineers lost their professional licences. The designers intended certain nuts to support the weight of only one floor, but the design was faulty because it turned out to be impossible to install them where specified. The nuts as actually installed bore the weight of both floors. The nuts eventually tore through when there were many people dancing on the catwalk.

### **Iraq mercury disaster.**

In 1972, at least 459 people were killed (estimates are over 500) and over 6,500 were hospitalised in Iraq after 8,000 tons of wheat and barley, intended as seed for planting only, was instead distributed to villagers and ground for flour. Warning labels on the bags of grain were in English only. Methyl mercury concentrations in the bread baked from the flour were estimated to average approximately 9 milligrams per kilogram(mg/kg) or 9 [ppm](#). The mercury-based fungicide which had been used to treat the seed grain had already been banned in the U.S. at the time of the disaster.

### **The Marchioness.**

The disaster occurred on the River Thames in London, England, in the early hours of 20 August 1989, when the pleasure boat Marchioness sank after being run down by the dredger Bowbelle. The two boats collided near Cannon Street Railway Bridge. There were 131 people on the Marchioness; fifty-one of them drowned.

In the collision, the anchor of the Bowbelle first cut through the side of the Marchioness. The Marchioness then rolled over and quickly filled with water while being pushed under by the Bowbelle. As the ship capsized, the entire superstructure of the Marchioness became detached. The formal investigation puts the time from the collision to complete immersion at close to 30 seconds. Witnesses quoted in the formal investigation describe the Bowbelle "hitting it [the Marchioness] in about its centre then mounted it, pushing it under the water like a toy boat." Of the deceased, 24 were recovered still in the wreck. The majority of the survivors had been on the upper decks at the time of the collision.

The disaster was found by the Marine Accident Investigation Branch to have been caused by the poor visibility from each ship's wheelhouse, the fact that both vessels were using the centre of the river, and the lack of clear instructions to the lookout at the bow of the Bowbelle. In 1991, the skipper of the Bowbelle, Douglas Henderson, was tried for failing to keep a proper look-out but after two juries were deadlocked he was formally acquitted. A Coroner's inquest on 7 April 1995 found the victims had been unlawfully killed.

Following pressure from the Marchioness Action [Group](#), the Secretary of State for the Environment, Transport and the Regions ordered a Formal Investigation into the circumstances of the collision. The report also blamed poor lookouts on both vessels for the collision, and criticised the owners and managers of both vessels for failing to properly instruct and monitor their crews.

In 2001, an inquiry into the competency and [behaviour](#) of Captain Henderson by the Maritime and Coastguard Agency concluded that he should be allowed to keep his master's certificate as he met all the service and medical fitness requirements. However, they "strongly deprecated" his conduct in drinking five pints of lager in the afternoon prior to the accident and for his admission that he had forged some signatures on certificates and testimonials in order to obtain his master



mariner certificate of competency in 1988.

### **Tacoma Narrows Bridge , Tacoma Washington , USA.**

Faulty design failed to take into account the effect of wind. The bridge crossed the Puget [Sound](#) inlet, which with its mountainous sides, acts as a wind tunnel. The bridge began to oscillate or 'gallop' in the wind until it eventually tore itself apart and collapsed, only a few months after it was built, on November 7, 1940. This collapse was captured on film and has been replayed on many occasions to demonstrate the scale and speed of the disaster.

### **Thalidomide.**

This drug, prescribed to pregnant women to combat 'morning sickness' was introduced in 1957 and used until it was banned in the early 1960s. It produced "an estimated 10,000 children - but probably many more - born throughout the world as phocomelics, deformed, some with fin-like hands grown directly on the shoulders; with stunted or missing limbs; deformed eyes and ears; ingrown genitals; absence of a lung; a great many of them still-born or dying shortly after birth; parents under shock, mothers gone insane, some driven to infanticide" according to Hans Ruesch, medical historian. Inadequate pre-release safety testing and a tendency to ignore warning signs contributed to the scale of the tragedy. In the 1990s, thalidomide's reputation has undergone something of a rehabilitation and many researchers believe that it may be valuable in the treatment of some disabling diseases. The U.S. Food and Drug Administration (FDA) has recently approved its use for research purposes. The fear of many is that if thalidomide is re-allowed for even these diseases, despite precautions, it is only a matter of time until a pregnant woman is given thalidomide.

### **Titanic.**

At 2.20 am on Monday April the 15th 1912, Titanic disappeared under the Atlantic, just off the Grand Banks, not to be seen again by human eyes for another 73 years. This was perhaps the most famous, although not the most deadly, man-made disaster of all time. Excessive pride in the 'unsinkable' design prompted the owners and crew to race the Titanic, on her maiden voyage, at high speeds across the North Atlantic in iceberg season. When the Titanic struck an iceberg, substandard steel rivets shattered and steel plates buckled, breaching more watertight compartments than the designers had ever considered a possibility. Insufficient numbers of lifeboats incompletely loaded resulted in the deaths of about two-thirds of the 2,200 people on board, a total of 1,500 people.

### **West Gate Bridge , Melbourne Australia , 1970.**

When construction crews had difficulty connecting two poorly-fitted sections, the bolts at the ends of the bridge were loosened in the hopes of allowing enough 'give' for the sections to be joined. It was felt that the risk of this procedure was low. The idea was a bad one: the end bolts failed and one section fell to the ground, killing 35 workers.

### **Yangtze Dam Bursts.**

On August 7, 1975 , following heavy typhoon rains, a series of 62 dams on the Yangtze River burst in sequence, initiated by the failure of two major dams. Weather conditions (which might have been anticipated), difficult geology, poor engineering (there were insufficient means to release excess water) and poor [maintenance](#) (a large dam requires constant care and repair) contributed to the disaster. Within a few hours, tens of thousands of people died. Hundreds of thousands more died in the following months due to disease and starvation. Although poorly reported in the West, this may have been the greatest human-made disaster in history. In 2006, the Changjiang Sanxia Daba (Three Gorges Dam) was completed on the Yangtze river. There have been concerns over its environmental impact and the fact that it is built on a fault line.

### **Yusho Poisoning.**

In 1968, more than one thousand people in western Japan became seriously ill after eating food that was cooked in rice oil, contaminated with polychlorinated biphenyls (PCBs). The source of the PCBs had been leaking equipment in the factory where the rice oil was produced, so that it mixed with the rice oil during the manufacturing process. Their symptoms included fatigue, head-

ache, cough, numbness in the arms and legs, and unusual skin sores. Pregnant women later delivered babies with birth defects. Another similar incident of massive human exposure to PCBs occurred in Taiwan in 1979.

### 1.1.1 Multi-Disciplinary Nature of Health & Safety.

Since 1950, the International Labour Organization ([ILO](#)) and the World Health Organization ([WHO](#)) have shared a common definition of occupational health. It was adopted by the Joint ILO/WHO Committee on Occupational Health at its first session in 1950 and revised at its twelfth session in 1995.

#### **The definition reads:**

"Occupational health should aim at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarize, the adaptation of work to man and of each man to his job."

#### **"The main focus in occupational health is on three different objectives:**

- (i) the maintenance and promotion of workers' health and working capacity;
- (ii) the improvement of working environment and work to become conducive to safety and health; and
- (iii) development of work organizations and working cultures in a direction which supports health and safety at work and in doing so also promotes a positive social climate and smooth operation and may enhance productivity of the undertakings."

#### **Joint ILO/WHO Committee on Occupational Health.**

[http://www.ilo.org/safework\\_bookshelf/english?content&nd=857170174](http://www.ilo.org/safework_bookshelf/english?content&nd=857170174).

In the ILO publication '*Fundamental Principles of Occupational Health and Safety*' by Benjamin O. Alli, Occupational safety and health is described as '*an extensive multidisciplinary field*'. So, what does Alli mean by this term multidisciplinary?

Occupational safety and health is an extensive multidisciplinary field, invariably touching on issues related to scientific areas such as medicine – including physiology and [toxicology](#) – [ergonomics](#), physics and chemistry, as well as technology, economics, law and other areas specific to various industries and activities.

### 1.1.2 Barriers to Good Standards of Health & Safety.

#### **Barriers to good standards of health and safety include:**

**Complexity** - Employees become unhappy with the amount and type of information available on health and safety which is not tailored specifically to them. Legislation, regulations and requirements can become overwhelming, difficult to understand and poorly communicated.

**Competing & Conflicting Demands** - demands to meet production targets or keep within budgets, may compromise health and safety.

**Behavioural Issues** - changing workers attitudes and behaviour to work safely is one of the biggest challenges in health and safety.

### 1.1.3 Meaning of health, safety, welfare and environmental protection.

#### Definition of Health.

**C155** - Occupational Safety and Health Convention, 1981 (No. 155)

[http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms\\_093550.pdf](http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_093550.pdf).

**(e)** - the term health, in relation to work, indicates not merely the absence of disease or infirmity; it also includes the physical and mental elements affecting health which are directly related to safety and [hygiene](#) at work.

#### WHO definition of health .

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

(The correct bibliographic citation for the definition is: Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948. The Definition has not been amended since 1948).

#### Definition of Safety.

##### Safety.

The condition of being safe ; freedom from danger or risks.

(Source: Oxford Concise English Dictionary)

**Occupational Health and Safety Assessment Series Page 3 OHSAS 18001: 1999 also provides a definition of safety:**

#### 3. Terms and Definition.

##### 3.16 Safety.

Freedom from [unacceptable risk](#) of harm.

##### Welfare.

Welfare refers to the facilities for workplace comfort. Workplace welfare requirements are included in the UK's The Workplace (Health, Safety and Welfare) Regulations 1992.

##### Environmental protection.

The [Organisation](#) for Economic [Co-operation](#) and Development (OECD) offers a definition of environmental protection as:-

##### Definition:

Environmental protection refers to any activity to maintain or restore the [quality](#) of environmental media through preventing the emission of pollutants or reducing the presence of polluting substances in environmental media.

##### It may consist of:

- (a) changes in characteristics of goods and services,
- (b) changes in consumption patterns,
- (c) changes in production techniques,
- (d) treatment or disposal of residuals in separate environmental protection facilities,
- (e) recycling; and
- (f) prevention of degradation of the landscape and ecosystems.

### 1.2 The moral, social and economic reasons for good standards of health and safety in the workplace.

### **The Size of the Health and Safety 'problem'.**

Every year in the UK alone, about 400 people are killed in accidents caused by work activities and over a million workers are injured. Around two million people (5% of the population) suffer from ill-health caused by work and it is estimated that around 25 million working days are lost every year as a result of work-related accidents and ill-health. Every year, around three thousand people die as a result of past exposure to asbestos and more than 25,000 are forced to give up work due to work-related accidents and ill-health.

### **Accidents in the [EU](#).**

During 1998\* there were 4.7 million occupational accidents leading to more than three days' absence from work. This gives an incidence rate of 4,089 accidents per 100,000 people at work. Deaths were 5.0 per 100,000 people, with a total of 5,476 people killed at work. A further 3,100 fatalities occurred between home and work. Of the total of nearly 8,600 work-related deaths, 59 per cent were due to road or transport accidents. More details can be obtained from the website of the European Agency for Safety and Health ([www.osha.eu.int](http://www.osha.eu.int)). The site links to Member State sites where national legislation and guidance can be found.

People employed for less than two years were found to be between 1.2 and 1.3 times more likely to have an accident than the average worker, irrespective of whether they had a temporary or permanent [contract](#).

In some sectors, the figure was much higher than this. For example, staff in hotels and restaurants who had been permanently employed for less than two years were 47% more likely to have an accident, relative to their industry average. Similarly, temporary employees in construction were 65% more likely to be injured than other workers in their sector.

For all people aged between 18 and 24, and for everyone working night shifts of at least 20 hours a week, the risk of an accident was 1.4 times the average.

Fishing was the most dangerous occupation at 2.43 times the EU occupational average. Other high-risk sectors included construction (1.41 times the EU average), health and social welfare (1.34), and agriculture (1.32).

Other than accidental injuries, work-related health problems affected 7.7 million people in 1998/99, 53 per cent of the cases involving musculoskeletal disorders. These were most common in the health and social welfare sector followed by construction and transport. Eighteen per cent of cases were related to stress, depression or anxiety. In [education](#) and the health and social welfare sectors, the incidence of these problems was twice the EU average.

**\*Eurostat- Statistics in Focus - Population and Social Conditions - No 16/2001 *Accidents at Work in the EU 1998-1999* - Catalogue No KS-NK-01-016-EN-C.**

### **The world picture.**

It is remarkably difficult to assemble an accurate picture of occupational accidents around the world. There are many reasons for this: there is no common agreement even on what constitutes 'an accident' for the purposes of recording information or on the types of incident that should be reported to, or collected by, enforcing authorities, and there is underreporting for a range of reasons on a huge scale. Nevertheless, the [International Labour Organisation](#) (ILO) makes regular estimates on the best information available to it, and the following table was presented at the 16th International Conference of Labour Statisticians (Geneva, October 1998) by the ILO's Jukka Takala. Note that the world labour force is estimated at 2.7 billion people.



ALL REGIONS				
Region	Fatality Rate $F_r/10^5$	Employment E, million	Fatalities $F_r \times E$	Notes
EME	5.3	366.437	19,662	World Labour Force 2.7 billion
FSE	11.1	140.282	15,563	
IND	11.0	334.000	36,740	
CHN	11.1	614.690	68,231	
OAI	23.1	339.840	80,586	
SSA	21.0	218.400	45,864	
LAC	13.5	195.000	26,374	
MEC	22.5	186.000	41,850	
WORLD	14.0	2,394.667	334,870	

EME	Established Market Economies	OAI	Other Asia and Islands
FSE	Formerly Socialist Economies of Europe	SSA	Sub-Saharan Africa
IND	India	LAC	Latin America and the Caribbean
CHN	China	MEC	Middle Eastern Crescent

**Figure 1.**

In short, arguments for good management of health and safety include:

- **Legal:** criminal and [civil liability](#).
- **Economic:** the costs of injuries and ill-health.
- **Moral:** ethical and responsible behaviour.

We will now discuss these further.

### 1.2.1 The Legal Arguments for Maintaining Good Standards of Health and Safety.

#### Duty of Care.

Both the employer and employee have a [common law](#) duty of care to each other and to other employees. This includes exercising [reasonable care](#) in order to protect others from the risks of foreseeable [injury](#), death at work or health problems.

#### The Employer's Duty of Care.

Every employer must provide a safe workplace. This means that, if an employer is aware of a health and safety risk to employees, or ought to have known of its existence (in the [light](#) of [current](#) knowledge at the time), he will be liable if an employee is injured, killed or suffers illness as a result of the risk and he (the employer) has failed to take reasonable steps to avoid it happening.

#### Employee Rights and Expectations.

Employees have the right to the provision of a safe workplace, as implied by the employer's duty of care, but there are also expectations placed on them to exercise reasonable care in their own actions at work. This means that they must behave in a manner which does not jeopardise their own, or others', health and safety, including co-operating with the employer in the use of safe working practices as provided.

### 1.2.2 The Economic Arguments for Maintaining Good Standards of Health and Safety

#### Hidden Costs of Accidents:

Within the UK, a [survey](#) published by the [HSE](#) in 1993 showed that for every £1 recovered from insurance companies for losses and accidents, between £8 and £36 were not recovered and had to be paid for from company profits. In one case at a hospital, this amounted to 5% of the annual running costs; and in another, for a transport company 37% of the annual profits.

A popular way of depicting the difference between direct and [indirect costs](#) is by means of an iceberg analogy (see illustration below):

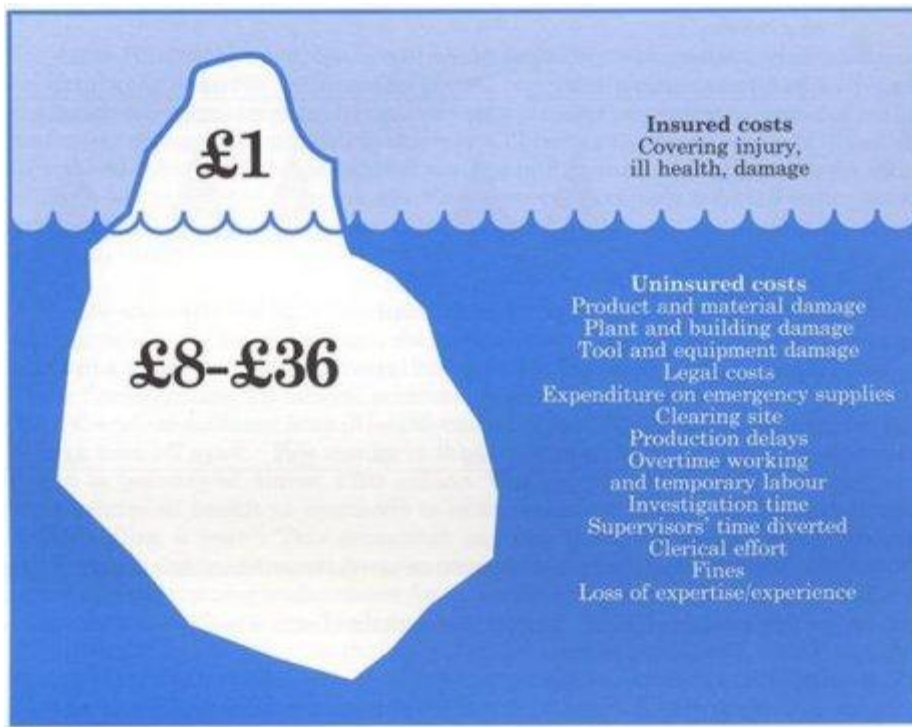
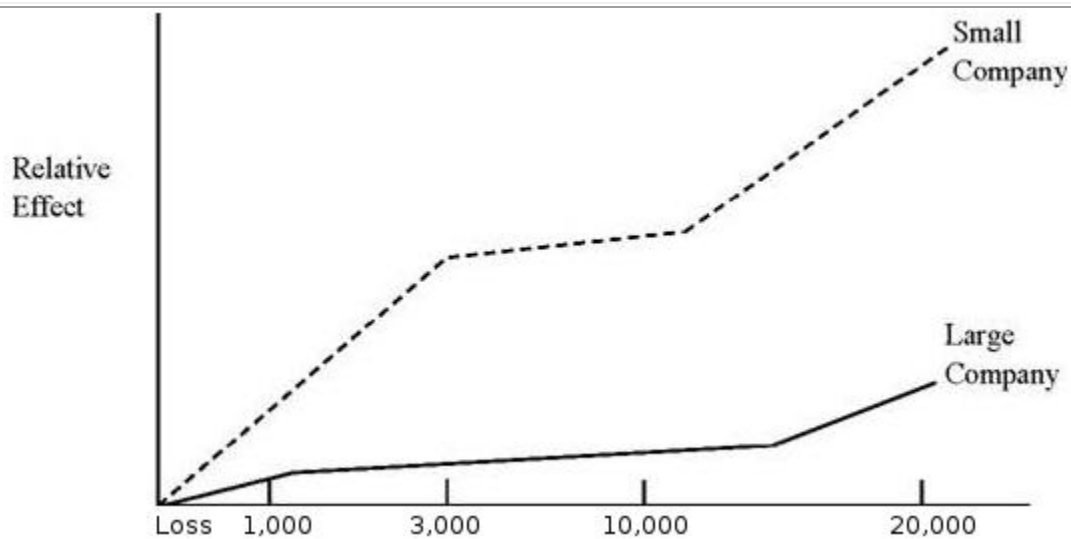


Figure 1.

#### ECONOMIC FACTORS.

##### *The Large Company.*

Generally speaking, it is big companies which tend to suffer the largest financial losses as a result of industrial accidents (see Figure 4.6). But, paradoxically, it is these same companies that can best absorb quite large losses without much effect on their overall profits and hence dividends paid to their shareholders. Large companies often maintain high stock levels in order to be able to maintain their markets in adverse situations. Alternatively, they may keep spare productive capacity available at another site or in another building.



**Figure 2.**

### **The Small Company.**

Smaller companies, by comparison, usually have lower levels of investment and resources available and, as a consequence, might face serious financial difficulties with a [loss](#) of £10,000 or less. The effect of any such financial loss is, therefore, not proportional to the size of the company.

Another interesting finding in relation to accidents in small companies was revealed in an investigation into the relationship between injury absences, sickness and absenteeism. It was found that injuries occurring in smaller companies tended to result in more time off than either sickness or absenteeism. It follows that effective techniques of safety management are of more benefit to the smaller company.

### **The Cost.**

Health and safety failures cost Great Britain up to £18.1 billion each year (2.1% -2.6% GDP). The cost of work-related accidents and ill-health to employers equals £140-£300 for each worker employed, while the cost of work-related accidents and illness to employees is estimated at between £3.5 billion and £7.3 billion a year (4% - 8% of gross company trading profits). Over £180 million could be saved in work-related illness costs in the construction industry alone.

The cost of work-related accidents and ill-health to employers is, of course, an average cost. Some accidents will cost only a few pence for a sticking plaster; others may cost hundreds or even thousands of pounds when the cost of hospital treatment is taken into consideration.

It is also necessary to distinguish between the direct and the indirect costs of an accident (see below). It has been estimated that indirect costs account for as much as four times the [direct costs](#).

We must look now to see just what factors affect the direct and indirect costs of industrial accidents. However, it is necessary broadly to classify the types of accident that can occur.

### **There are four main classes of accident:**

- (a) Those that cause no [damage](#) to property or injury to people.
- (b) Those that cause damage to material, plant or equipment but do not injure personnel.
- (c) Those that cause injury to personnel but do not damage property.
- (d) Those that cause both injury to people and damage to material, plant and equipment.

**The cost of an accident can be divided into two parts: there are direct costs, which include:**

- insurance claims,
- sick pay,
- loss of production,
- repairs,
- product loss or damage,
- public liability,
- damage to equipment, buildings, etc.

**The indirect costs include:**

- business interruption,
- product liability,
- loss of orders,
- cost of time spent on investigations,
- legal fees,
- loss of corporate image.

In addition to which, we must not forget the cost of suffering that those injured may endure and the stress for their families, together with the psychological effect on other workers.

**We can set out a comparison of direct and indirect costs using these accident classes, as follows:**

Type of.	Direct Cost.	Indirect Cost.
<b>Accident.</b>		
(a)	None.	Negligible, e.g. temporary work stoppage, duration dependent upon severity of the <a href="#">near miss</a> ?
(b)	<b>Value</b> of the work-piece, the work in hand, or structure.	<b>Wastage</b> of material and loss of time already spent on the job.
	<b>Value</b> of plant and equipment to be replaced.	The plant may be <b>out of action</b> for some time and, if vital, may affect all production.
	<b>Damage</b> to tools and testing equipment that have to be replaced.	<b>Delay</b> while waiting for replacements that may have to be specially made.
(c)	<b>Cost of medical treatment.</b>	<b>Lost time, due to:</b>
	– <a href="#">First aid</a> .	– Workers stopping to assist out of sympathy or curiosity, or to discuss the incident.



	– Ambulance.	– Machinery stopped to free victim.
	– Out-patient treatment.	– Supervisors assisting victim.
	– In-patient treatment (bed, nursing, doctors, specialists, consultants, medication, etc.)	– Management and others who have to investigate the incident. Rearrangement of production schedules.
	<u>Compensation.</u>	
		<b>Lost time, due to :</b>
	Fines imposed on conviction.	– Preparation of reports, etc.
	for <u>breach of statutory duty.</u>	– Attendance for court proceedings.
		– Hospital visits and dealing with
		relatives.
		<b>Loss of profit, due to:</b>
		– Loss of victim's production.
		– Cost of training replacement.
		– Reduced productivity, additional wages and overtime.
		<b>Consequential loss, due to:</b>
		– Interference with production.
		– Failure to meet completion dates (penalty clause); loss of goodwill.
		– Cancellation of orders and loss of future production.
		<b>Increased overheads:</b>
		If plant and men are idle; possible costs of plant hire.
		<b>Additional consequential loss:</b>
		As a result of a poor accident record -

		difficult to employ good men; bad workers <a href="#">waste</a> more, produce less and are more accident prone.
(d)	The factors contributing towards the cost of accidents where both <a href="#">personal injury</a> and material damage are involved are likely to be a combination of those listed under accident types (b) and (c).	

To recap, as well as the four main classes of accident, direct and indirect cost implications, there is also the consideration of what can and cannot be insured:

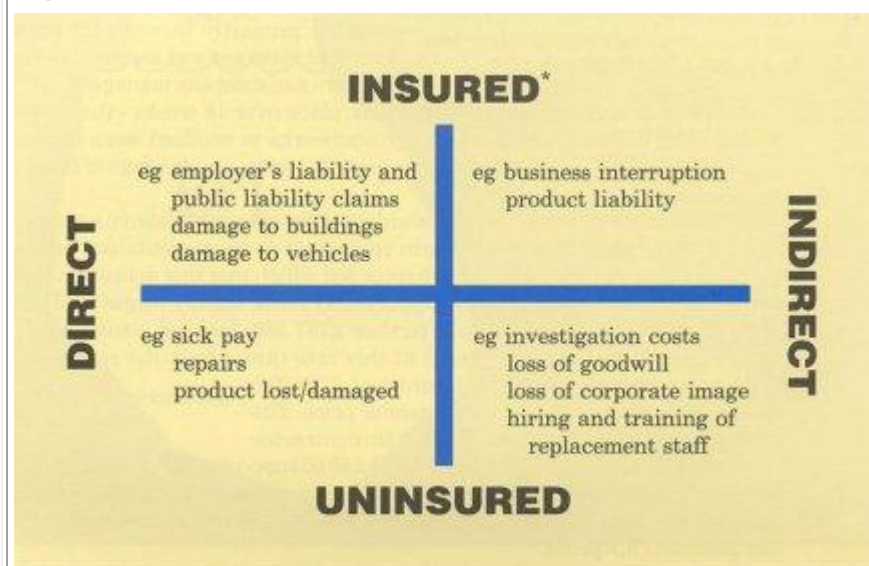


Figure 3.

### 1.2.3 Social Reasons for Maintaining & Promoting Good Standards of Health & Safety.

Society is less tolerable of accidents and incidents especially now as more accidents are tele-vised or published in newspapers. Society demands that people should not be put at risk during their working days nor should those working nearby or the public be affected by the actions or others.

It is unacceptable by society standards that [control](#) measures are not put in place to prevent accidents.

Everyone has the right to go to work and come back in the same state. Therefore the societal demands as well as the moral requirements (that you would not like to think that something you have done/have not done has caused harm) means that more attention is paid to accidents and companies who have them. This can lead to bad publicity in local and national press and a decline in new contracts or renewals.

### 1.2.4 Core Occupational health and safety principles - ILO.

#### Core Occupational health and safety principles (ILO).

- All workers have rights.
- Occupational safety and health policies must be established.

- A national system for occupational safety and health must be established.
- A national programme on occupational safety and health must be formulated.
- Social partners (that is, employers and workers) and other stakeholders must be consulted.
- Occupational safety and health programmes and policies must aim at both prevention and protection.
- Continuous improvement of occupational safety and health must be promoted.
- Information is vital for the development and implementation of effective programmes and policies.
- Health promotion is a central [element](#) of occupational health practice.
- Occupational health services covering all workers should be established.
- Compensation, rehabilitation and curative services must be made available to workers who suffer occupational injuries, accidents and work-related diseases.
- Education and training are vital components of safe, healthy working environments.
- Workers, employers and competent authorities have certain responsibilities, duties and obligations.
- Policies must be enforced.

### 1.2.5 Health and Safety Requirements.

#### **C155 - Occupational Safety and Health Convention, 1981 (No. 155).**

Sets out broad requirements for member countries to follow to ensure health and safety requirements are set into national laws.

#### **Article 16:**

- 1. Employers shall be required to ensure that, so far as is [reasonably practicable](#), the workplaces, machinery, equipment and processes under their control are safe and without risk to health.
- 2. Employers shall be required to ensure that, so far as is reasonably [practicable](#), the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken.

### **Question 3**

Please select the correct missing words, in order, for the below sentence.

Near \_\_\_\_\_ are any form of \_\_\_\_\_ which could result in \_\_\_\_\_ or loss but \_\_\_\_\_.

#### **Matching (HP) First answer should jump to the "Correct" Page**

Answer 1:	Near
Matches with answer 1:	Misses
Correct answer score:	0
Correct answer jump:	Next page
Answer 2:	are any form of
Matches with	accident

answer 2:	
Wrong answer score:	0
Wrong answer jump:	This page
Answer 3:	which could result in
Matches with answer 3:	injury
Answer 4:	or loss but
Matches with answer 4:	do not

#### Question 4.

According to EU accident statistics persons employed for less than 2 years were found to be how many times more likely to have an accident than the average worker?

#### Multiple Choice (HP)

Answer 1:	No more likely
Response 1:	
Jump 1:	This page
Answer 2:	1.2 - 1.3 times
Response 2:	
Jump 2:	Next page
Answer 3:	5 - 10 times
Response 3:	
Jump 3:	This page

#### Question 5.

Why is it difficult to create an accurate picture of occupational accidents from around the world?

#### Multiple Choice (HP)

Answer 1:	Under Reporting
Response 1:	
Jump 1:	This page
Answer 2:	No common agreement of what constitutes an accident
Response 2:	
Jump 2:	This page
Answer 3:	All of these
Response 3:	
Jump 3:	Next page



**Question 6.**

It has been estimated that indirect costs account for as much as four times the direct costs.

**True/False (HP)**

Answer 1: True

Response 1:

Jump 1: Next page

Answer 2: False

Response 2:

Jump 2: This page

**1.3 Role of National Governments & International Bodies in Formulating a Framework for the Regulation of Health & Safety.**

The [ILO](#) sets out conventions and member states subscribing to the work of the ILO agree to be bound by conventions they have ratified.

The ILO – Occupational [Safety](#) and Health Convention C155 sets out broad requirements for member countries to follow to ensure health and safety requirements are set in national laws.

**Article 4.**

- 1. Each Member shall, in the [light](#) of national conditions and practice, and in consultation with the most representative organisations of employers and workers, formulate, implement and periodically [review](#) a coherent national [policy](#) on occupational safety, occupational health and the working [environment](#).

**Article 8.**

- Each Member shall, by laws or regulations or any other method consistent with national conditions and practice and in consultation with the representative organisations of employers and workers concerned, take such steps as may be necessary to give effect to Article 4 of this Convention

National governments set out law in a form that suits their [culture](#) and perspectives and national legislation that has been developed to address specific problems in specific industries.

**1.3.1 Employers' Responsibilities.**

Employers have multiple responsibilities according to the ILO Occupational Safety and Health Convention C155. These responsibilities are set out under Part IV. Action at the level of the undertaking.

**Article 16.**

- 1. Employers shall be required to ensure that, so far as is reasonably practicable, the workplaces, machinery, equipment and processes under their control are safe and without risk to health.
- 2. Employers shall be required to ensure that, so far as is reasonably practicable, the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken.

- 3. Employers shall be required to provide, where necessary, adequate protective clothing and protective equipment to prevent, so far as is reasonably practicable, risk of accidents or of adverse effects on health.

#### **Article 17.**

Whenever two or more undertakings engage in activities simultaneously at one workplace, they shall collaborate in applying the requirements of this Convention.

**In some countries employer's responsibilities are set out in [criminal law](#):**

#### **United States of America (USA) – Occupational Safety and Health Act 1970.**

The Occupational Safety and Health Act is the primary federal law which governs occupational health and safety in the private sector and federal government in the United States. It was enacted by Congress in 1970 and was signed by President Richard Nixon on December 29, 1970. Its main goal is to ensure that employers provide employees with an environment free from recognized hazards, such as exposure to [toxic](#) chemicals, excessive [noise](#) levels, mechanical dangers, heat or [cold stress](#), or unsanitary conditions.

[http://www.osha.gov/pls/oshaweb/owasrch.search\\_form?p\\_doc\\_type=OSHACT&p\\_toc\\_level=0](http://www.osha.gov/pls/oshaweb/owasrch.search_form?p_doc_type=OSHACT&p_toc_level=0).

The USA's Occupational Safety and Health Act 1970 sets out workers' duties in section 5.

#### **Malaysia – Occupational Safety and Health Act 1994.**

The Occupational Safety and Health Act 1994 (Act 514) is a piece of Malaysian legislation which was gazetted on 25 February 1994 by the Malaysian Parliament. The principle of the Act is "To make further provision for securing that safety, health and welfare of persons at work, for protecting others against risks to safety or health in connection with the activities of persons at work, to establish the National Council for Occupational Safety and Health and for matters connected therewith."

<http://www.agc.gov.my/Akta/Vol.%2011/Act%20514.pdf>.

Part IV of the Act sets out duties of employers and self-employed persons.

#### **General duties of employers and self-employed persons to their employees:**

- 15.(1) It shall be the duty of every employer and every self-employed person to ensure, so far as is practicable, the safety, health and welfare at work of all his employees.
- 15.(2) Without prejudice to the generality of subsection (1), **the matters to which the duty extends include in particular:**
  - (a) the provision and maintenance of plant and systems of work that are, so far as is practicable, safe and without risks to health;
  - (b) the making of arrangements for ensuring, so far as is practicable, safety and absence of risks to health in connection with the use or operation, handling, storage and transport of plant and substances;
  - (c) the provision of such information, instruction, training and supervision as is necessary to ensure, so far as is practicable, the safety and health at work of his employees;
  - (d) so far as is practicable, as regards any place of work under the control of the employer or self-employed person, the maintenance of it in a condition that is safe and without risks to health and the provision and maintenance of the means of access to and egress from it that are safe and without such risks;
  - (e) the provision and maintenance of a working environment for his employees that is, so far as is practicable, safe, without risks to health, and adequate as regards facilities for their welfare at work.

#### **South Africa – Occupational Health and Safety Act 1993.**

#### **8. General duties of employers to their employees:**

- 8.(1) Every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of his employees.
- 8.(2) Without derogating from the generality of an employer's duties under subsection (1), **the matters to which those duties refer include in particular:**
  - (a) the provision and maintenance of systems of work, plant and machinery that, as far as is reasonably practicable, are safe and:
  - without risks to health;
  - (b) taking such steps as may be reasonably practicable to eliminate or mitigate any [hazard](#) or potential hazard to the safety or health of employees, before resorting to [personal protective equipment](#);
  - (c) making arrangements for ensuring, as far as is reasonably practicable, the safety and absence of risks to health in connection
  - with the production, processing, use, handling, storage or transport of articles or substances;
  - (d) establishing, as far as is reasonably practicable, what hazards to the health or safety of persons are attached to any work which is performed, any article or substance which is produced, processed, used, handled, stored or transported and any plant or machinery, which is used in his business, and he shall, as far as is reasonably practicable, further establish what precautionary measures should be taken with respect to such work, article, substance, plant or machinery in order to protect the health and safety of persons, and he shall provide the necessary means to apply such precautionary measures;
  - (e) providing such information, instructions, training and supervision as may be necessary to ensure, as far as is reasonably practicable, the health and safety at work of his employees;
  - (f) as far as is reasonably practicable, not permitting any employee to do any work or to produce, process, use, handle, store or transport any article or substance or to operate any plant or machinery, unless the precautionary measures contemplated in paragraphs (b) and (d), or any other precautionary measures which may be prescribed, have been taken;
  - (g) taking all necessary measures to ensure that the requirements of this Act are complied with by every person in his employment or on premises under his control where plant or machinery is used;
  - (h) enforcing such measures as may be necessary in the interest of health and safety;
  - (i) ensuring that work is performed and that plant or machinery issued under the general supervision of a person trained to understand the hazards associated with it and who have the [authority](#) to ensure that precautionary measures taken by the employer are implemented; and
  - (j) causing all employees to be informed regarding the scope of their authority as contemplated in section 37 (1) (b).

<http://www.info.gov.za/acts/1993/a85-93.pdf>.

### 1.3.2 Workers' Responsibilities and Rights.

#### **Workers' responsibilities and rights.**

The ILO sets out workers' responsibilities to protect themselves and those around them from harm.

The USA's Occupational Safety and Health Act 1970 sets out workers' duties in section 5.

- (b) Each employee shall comply with occupational safety and health standards and all

rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

## **Malaysia – Occupational Safety and Health Act 1994.**

Part VI General Duties of Employees.

### **Section 24 – General duties of employees at work:**

- **24. (1) It shall be the duty of every employee while at work:**
  - (a) to take reasonable care for the safety and health of himself and of other persons who may be affected by his acts or omissions at work;
  - (b) to co-operate with his employer or any other person in the discharge of any duty or requirement imposed on the employer or that other person by this Act or any [regulation](#) made thereunder;
  - (c) to wear or use at all times any protective equipment or clothing provided by the employer for the purpose of preventing risks to his safety and health; and
  - (d) to comply with any instruction or measure on occupational safety and health instituted by his employer or any other person by or under this Act or any regulation made thereunder.
- **24. (2) A person who contravenes the provisions of this section shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding one thousand ringgit or to imprisonment for a term not exceeding three months or to both.**

### **Section 25 – Duty not to interfere with or misuse things provided pursuant to certain provisions.**

- **25. A person who intentionally, recklessly or negligently interferes with or misuses anything provided or done in the interests of safety, health and welfare in pursuance of this Act shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding twenty thousand ringgit or to imprisonment for a term not exceeding two years or to both.**

### **Section 26 – Duty not to charge employees for things done or provided.**

- **26. No employer shall levy or permit to be levied on any employee of his any charge in respect of anything done or provided in pursuance of this Act or any regulation made thereunder.**

### **Section 27 – [Discrimination](#) against employees, etc.**

- **27.(1) No employer shall dismiss an employee, injure him in his employment, or alter his position to his detriment by reason only that the employee:**
  - (a) makes a complaint about a matter which he considers is not safe or is a risk to health;
  - (b) is a member of a safety and health committee established pursuant to this Act; or
  - (c) exercises any of his functions as a member of the safety and health committee.
- **27.(2) No trade union shall take any action on any of its members who, being an employee at a place of work:**
  - (a) makes a complaint about a matter which he considers is not safe or is a risk to health;
  - (b) is a member of a safety and health committee established pursuant to this Act; or
  - (c) exercises any of his functions as a member of the safety and health committee.
- **27.(3) An employer who, or a trade union which, contravenes the provisions of this**



section shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding ten thousand ringgit or to a term of imprisonment not exceeding one year or to both.

- **27.(4) Notwithstanding any written law to the contrary, where a person is convicted of an offence under this section the Court may, in addition to imposing a penalty on the offender, make one or both of the following orders:**
  - (a) an order that the offender pays within a specific period to the person against whom the offender has discriminated such [damages](#) as it thinks fit to compensate that person;
  - (b) an order that the employee be reinstated or re-employed in his former position or, where that position is not available, in a similar position.

### **Role of enforcement agencies and consequences of non-compliance.**

Convention C155 sets out the following requirements.

#### **Articles 9 and 10.**

##### **Article 9.**

- 1. The enforcement of laws and regulations concerning occupational safety and health and the working environment shall be secured by an adequate and appropriate system of [inspection](#).
- 2. The enforcement system shall provide for adequate penalties for [violations](#) of the laws and regulations

##### **Article 10.**

Measures shall be taken to provide guidance to employers and workers so as to help them to comply with legal obligations.

In the [European Union](#) (EU) member states have enforcing authorities to ensure that basic legal requirements relating to occupational health and safety are met. In the UK on the behalf of the government Health and safety legislation is enforced by the [Health and Safety Executive](#) (HSE) and local authorities under powers provided by the Health and Safety at Work etc. Act 1974. In Malaysia the Department of Occupational Safety and Health (DOSH) under the Ministry of Human Resource is responsible to ensure the safety, health and workers in the public and private sector. DOSH enforces the Occupational Safety and Health Act 1994.

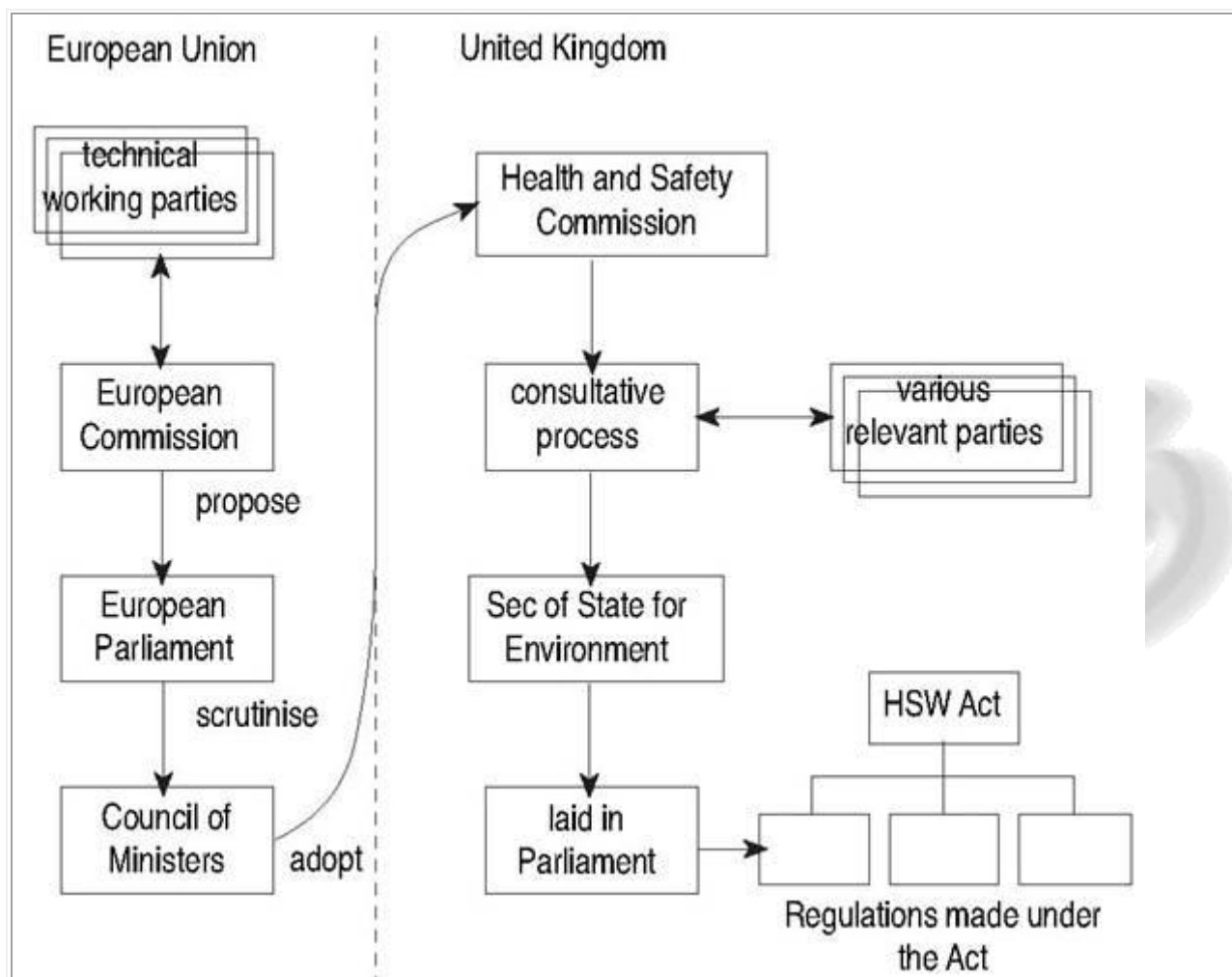
### **1.3.3 The Role of the European Union in Harmonising Standards of Health and Safety.**

**European Union Law:** European Directives are binding on all member states, but each state must pass its own legislation (in the United Kingdom, a statutory instrument) to bring the EU legislation into effect.

#### **European Court.**

The European Court has held that if national law conflicts with the [Directive](#), an individual may plead the Directive in litigation. The national court must decide the issue as if the Directive had been enacted. However, only certain types of Directive may be applicable.

Since the United Kingdom joined the European Economic Community (now known as the European Union), the courts of England and Wales have, at times, to comply with EU legislation. The point is that the EU is seeking greater unity - and thus one way is to gradually amend legislation, so that the legal rules affecting trade and commerce become uniform. This position is still far away, and there is much work being done in this respect.



**Figure 1.**

### **How EU Directives become UK Regulations under the HSW Act.**

European Directives that are adopted by the [Council of Ministers](#) need to be implemented by Member States. With regard to health and safety Directives, the HSE have three options to consider.

- No new Regulations needed as British legislation already covers the essential aims of the Directive.
- Modifications needed to existing legislation which either: covers some but not all of the essential aims; covers all of the essential aims but not in sufficient depth.
- New Regulations required to cover the essential aims.

### **European Dimension:**

- The UK is bound by EU legislative procedures on joining (then EEC) in 1972.
- Veto by member states on proposed legislation changed to qualified majority voting on adoption of [Single European Act](#) (SEA) 1986.
- Significant progress made since SEA on new health and safety legislation.
- **Regulations:** similar to [statute law](#) and binding on member states without further action (e.g. tachograph requirements).
- **Directives:** prescribe a result to be achieved by a set date, leaving member states to transpose into national law (e.g. The '[Six Pack](#)').
- It is possible for the [European Commission](#) to introduce quite wide-ranging proposals un-

der the health and safety provisions of the Single European Act (SEA, [Article 118A](#)).

### The European Courts.

- **European Court of Human Rights** - interprets European Convention for Protection of Human Rights and Freedoms.
- [European Court of Justice](#) - gives rulings on interpretation of EU law at the request of a member state or an individual.

### Question 7.

European Directives are binding on all member states but each state must pass its own legislation to bring EU legislation into effect.

### True/False (HP)

Answer 1: True

Response 1:

Jump 1: Next page

Answer 2: False

Response 2:

Jump 2: This page

### 1.3.4 International Health and Safety Law.

#### Historical perspective.

Until 1970, there was a broad agreement between governments on their regulatory approach to health and safety at work. National laws prescribed in lesser or greater detail the minimum standards which employers must achieve at their workplaces - although some workplaces were deliberately excluded because of perceived low risk, difficulty of enforcement, and industry and local traditions.

In 1970, the United States introduced a new legal regime in the Williams Steiger Act, better known as OSHA. This was, and is, a comprehensive statute which is essentially prescriptive - it contains full details of the means of compliance and control for a huge variety of circumstances and hazards. Later enactments followed the same prescriptive course.

In the United Kingdom, a [review](#) of existing legal controls carried out by the Robens Committee resulted in the introduction in 1974 of the Health and Safety at Work etc Act. This measure contained relatively little by way of prescription and relied instead on the achievement of "reasonably practicable" standards of health and safety at work and elsewhere, on the part of both the employer and those in control of premises.

This was in contrast to the UK's earlier, highly specific and prescriptive rules which were destined to be progressively replaced by requirements introduced under the new system. These requirements referred to guidance and codes - mostly offered as examples - which the employer and others could choose to follow in the pursuit of "reasonably practicable" control measures. Many felt that the new law would lead to lowered standards. Time has shown that the increased flexibility offered by this approach conferred benefits not previously available, although the lack of a 'rule book' is still complained of by some groups.

The balance was redressed to some extent by the European Community, now the European Un-

ion, which required the United Kingdom as a Member State to provide more specific rules in compliance with the various health and safety directives introduced from the mid-1980s. Later sections of this module examine the central Framework Directive, and the way in which it was implemented in the United Kingdom, as an illustration of the current European approach to health and safety legislation.

### **The role of government.**

Where there is little social or economic reason for the employer to take positive action to prevent workplace injuries and ill-health, experience shows that these actions will only be taken where there is a firm [leadership](#) role taken by national government, backed by appropriate sanctions which are seen as significant by those they may affect. What are the components of such a role?

#### **Six major elements can be distinguished:**

**1 .Setting of appropriate standards for health and safety at work.** This requires a government to have available a pool of knowledge, skills and experience to enable the most appropriate legislation for the community to be devised, and revised as needed. Many governments have successfully borrowed legislation piecemeal from other nations; unfortunately some of what is borrowed may not 'fit' the new wearer, and even borrowed material needs revision over the passage of time. These are reasons why the local knowledge pool is needed.

**2. Enforcement of those standards through the legal system.** Among the many elements of an enforcement programme is, at the least, an adequate number of trained and competent inspectors or regulators, whose duties extend to the planned and random inspection of workplaces covered by the legislation, the investigation of incidents and complaints and the conduct of proceedings as necessary following such inspections and investigations. For financial reasons, and because of tradition, health and safety enforcement is often to be found within the framework of a department of labour, whose inspectors are also concerned with policies and enforcement of other aspects of the working environment, including wages and conditions. As a result, the time and skills of these inspectors may well be stretched to accommodate specialist knowledge of health and safety matters.

**3. Advice to employers, workers and the public on appropriate control measures, and the issue of explanatory publications.** Development of information resources in hazard controls, risk assessment techniques and collection of injury data produces inputs into an information system which will be able to offer answers to problems within the community and to monitor the national measures in force.

**4. Uniformity of approach.** There must be an appropriate means of dealing with those who deliberately avoid compliance with national laws, which is seen to be fair. Similarly, the penalties imposed should be appropriate to the offence and at a common level for the same offence committed in different places and environments. The level of penalty should be such that it offers an incentive to comply with the law, and sufficient so that there is no economic advantage to be gained by failure to comply, followed by a willingness to accept the resulting penalty. Equally, there must be some relation between national control measures and those of other international trading partners and other countries with broadly similar economies and standards. This will be significant for multi-national employers.

**5. Setting targets for future improvement.** Government moves to improve future national performance can include requiring the formal assessment of risk as a part of the planning process, making designers responsible for the provision of information about their designs and the future maintenance or dismantling of buildings, plant and equipment, and the publication of injury and ill-health data and other results set against future targets. It is self-evident that governments that do not carry out a progressive assessment of the impact of measures on the lives and wellbeing of the workforce are seen as paying lip-service to the common international goal of reduction in the numbers of workplace accidents of all kinds.

**6. Fostering co-operation between the parties involved - workers, worker representatives, management and government.** In many countries, legislation provides for joint consultation and information exchange on matters related to workers' safety and health. Experience in many coun-



tries shows that the potential for the contribution to good practices which can be made by workers is often undervalued, and those given consultation on their own safety and health are more likely to co-operate with the measures put in place to protect them. Equally, legislation which has the support of these major elements is more likely to be effective than that which is developed in [iso-lation](#).

### **The big picture - Sustainability.**

There is a growing recognition that 'health and safety' is but one of the facets of organisational control that must be mastered, not in isolation but together with others. Earlier concepts of [loss control](#) and risk management developed in response to the realisation that the protection of assets of organisations, states and even cultures is necessary to ensure survival. Now, the umbrella of 'sustainable development' has been raised to cover all of the dynamic elements of modern society.

One definition of sustainable development that has received general acceptance is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Thus, occupational health and safety is a part of sustainable development at the simplest level, because failure to achieve an adequate [standard](#) and to limit risks will compromise the very existence of future generations. Sustainable development is linked most closely with environmental concerns. A more refined definition puts the [concept](#) as a dynamic process that 'enables all people to realise their potential and improve their quality of life in ways which simultaneously protect and enhance the [Earth's](#) life support systems'.

Among multinational organisations especially, the sustainable development concept is becoming the main focus of action to demonstrate sensitivity towards their impact on the 'global village'. Criteria are being developed which measure progress towards satisfying not only their shareholders but also social and environmental performance. As yet, there is little sign of agreement on what should be achieved, or indeed how to do it. However, the trend is towards integration of activity in these areas, such that environmental and quality management are increasingly being linked with health and safety management. Partly, this is because the central features of their management systems are the same and there are likely to be economies of scale to be made as a result. Examination of the major international standards for these topics (ISO 9000, 14000 and OHSAS 18000 series) shows that their many common features enable the same management structures to be used.

Within the European Union (EU), the sovereignty and right of each Member State to pass laws on safety and health - or any other subject - is not affected: by agreement, the Member States harmonise their regulatory activities by proposing and discussing regulatory action in the European forum, resulting in directives which contain the principles and objectives to be attained by national legislation in each Member State. There is also a timetable for the implementation of the legislation, which must be sufficient to ensure compliance with the minimum standards set out in each of the directives.

There are major differences between the Member States in the organisation and administration of their national laws, in procedures including enforcement, and in terminology. These differences will be significant for health and safety practitioners working in each of the countries, and for employing organisations with operations in more than one country. There are differences in enforcement practices and standards, in the ability and knowledge of the enforcing authorities and their staff, and differences in legal systems and penalties applied. Consistency in these areas is an important goal for the EU.

National needs vary the extent to which internal legislation in Member States exceeds, extends or varies the directives. For example, in general, United Kingdom laws made in response to directives on health and safety at work exceed the directives' minimum standards because they apply to the self-employed as well as employees, employers and other duty-holders.

This Unit does not discuss the Directives on Product and Machinery Safety, which impose standards on products and equipment rather than on people and systems. There are considerable links between the two fields. Only one example of a directive is given in detail, followed by a

summary of the legislation introduced in the United Kingdom in order to comply with it, for illustrative purposes.

#### Question 8.

Which court gives rulings on interpretation of EU law at the request of a member state or an individual?

#### Multiple Choice (HP)

Answer 1: European Court of Justice

Response 1:

Jump 1: Next page

Answer 2: European Court of Human Rights

Response 2:

Jump 2: This page

#### Question 9.

In what decade did the US introduce the William Steiger Act (OSHA)?

#### Multiple Choice (HP)

Answer 1: 1960's

Response 1:

Jump 1: This page

Answer 2: 1970's

Response 2:

Jump 2: Next page

Answer 3: 1980's

Response 3:

Jump 3: This page

### 1.3.5 UK Legislation The Health and Safety at Work etc Act 1974 and Other Health and Safety Regulations.

Within this section we will be discussing the Health and Safety at Work etc Act 1974, health and safety regulations, approved codes of practice, official guidance and their relationships and relative status.

#### A short background in to the UK s Safety Legislation.

The first Factories Act was passed in 1802 and since then there have been a great many pieces of legislation passed in the Health and Safety field. The Factories Acts dealt with welfare; control of working hours, limitations to the employment of minors and women, provision of rest rooms etc, as well as safety in the work place.

The situation in the 1960s was that health and safety at work was controlled by nine main sets of

legislation administered by five government departments with seven independent inspectorates. At this time, the Robens Committee was set up to consider how the legislation could be made more effective.

**The Robens Committee, which reported in 1972, identified three main concerns:**

- The regulatory nature of the existing legislation which, in the main, was concerned with setting defined rules to be followed in specific situations inevitably led to complicated and fragmented legislation, covering some industries and omitting others.
- Rapid industrial innovation, technological changes and the increase in scale of operations was leading to a corresponding increase in the scale of hazards and legislation was failing to keep up.
- There was no downward trend in [accident rates](#).

The committee felt that the existing legislation did little to encourage employers to improve conditions beyond the rules laid down in the regulations. It was believed that self-regulation would be more successful. The need for [communication](#) between employers and employees about health and safety matters was also emphasised. Formal statements of [safety policy](#) and the use of [systematic](#) hazard assessment were also recommended. The unification of all enforcing bodies under one organisation to reflect the unification of the legislation was also recommended.

The result was The Health and Safety at Work etc Act (1974) which is the act under which all UK safety legislation is consolidated. All the previous legislation will eventually be phased out and replaced by regulations and approved codes of conduct under the HSAWA. The HSAWA is an 'enabling' Act, which provides a framework under which legislation can be introduced to cover specific areas, e.g. CIMA, [COSHH](#), although there are few regulations within the Act itself. The Act covers anyone affected by work activities and brought five million workers not covered by the existing legislation under its protection.

**The Health and Safety at Work Act 1974 Overview.**

The Health and Safety at Work Act 1974 is an enabling Act under which a number of very important regulations have been introduced. It is criminal law and so flouting it may result in prosecution. It is written in a rather generic manner; **however, section 2 of the Act states:** "It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all employees".

This is as prescriptive as the Act gets and this is known as the ***absolute duty of care***.

Although the Act is rather generic in its provisions, responsibility remains firmly with the employer.

**The Health and Safety at Work Act 1974** imposes general duties on everybody connected with work. The general duties contained in the Health and Safety at Work Act are:

**Section 1:** States the general purposes of Part 1 of the Act, which are to maintain or improve standards of health and safety at work, to protect other people against risks arising from work activities, to control the storage and use of dangerous substances and to control certain emissions into the air.

**Section 2:** Contains the duties placed upon employers with regard to their employees. These are outlined more fully below.

**Section 3:** Places duties on employers and the self-employed to ensure their activities do not endanger anybody (with the self-employed, that includes themselves), and to provide information, in certain circumstances, to the public about any potential hazards.

**Section 4:** Places a duty on those in control of premises, which are non-domestic and used as a place of work, to ensure they do not endanger those who work within them. This extends to plant and substances, means of access and egress as well as to the premises themselves.

**Section 6:** Places duties on manufacturers, suppliers, designers, importers etc in relation to articles and substances used at work. Basically, they have to research and test them and supply information to users.

**Section 7:** Places duties upon employees and these are outlined more fully below.

**Section 8:** Places a duty on everyone not to intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety and welfare.

**Section 9:** Provides that an employer may not charge his employees for anything done, or equipment provided for health and safety purposes under a relevant statutory provision.

#### **Employers.**

- **Section 2(1).** Ensure the health, safety and welfare of employees while at work.
- **Section 2(2) (a-e): Without prejudice to the above, the matters to which the duty extends include:**
  - (a) Provision and maintenance of safe plant and safe systems of work.
  - (b) Arrangements for ensuring safe means of handling, use, storage and transport of articles and substances.
  - (c) Provision of information, instruction, training and supervision.
  - (d) Provision of a safe place of work and provision and maintenance of safe access and egress to that workplace.
  - (e) Provision and maintenance of a safe working environment and adequate welfare facilities. (Note: The above duties are all qualified by the term "so far as is reasonably practicable".)

#### **Employees.**

- **Section 7 (a-b): It shall be the duty of every employee while at work:**
  - (a) To take reasonable care for the health and safety of himself and others who may be affected by his acts or omissions at work.
  - (b) To co-operate with his employer or any other person, so far as is necessary, to enable his employer or other person to perform or comply with any requirement or duty imposed under a relevant statutory provision.

*(Note: These duties have been extended by duties contained in the Management of Health and Safety at Work Regulations 1999.)*

### **1.3.6 C155 Occupational Safety and Health Convention, 1981.**

#### **C155 Occupational Safety and Health Convention, 1981.**

This convention is similar to the UK's Health and Safety at Work etc Act 1974

#### **Part 6, Article 16 of the Convention requires that employers:**

- **1.** shall be required to ensure that, so far as is reasonably practicable, the workplaces, machinery, equipment and processes under their control are safe and without risk to

health.

- **2.** shall be required to ensure that, so far as is reasonably practicable, the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken.
- **3.** shall be required to provide, where necessary, adequate protective clothing and protective equipment to prevent, so far as is reasonably practicable, risk of accidents or of adverse effects on health.

**Part 2, Article 19 of the Convention states that there shall be arrangements at the level of the undertaking under which:**

- (a) workers, in the course of performing their work, co-operate in the fulfilment by their employer of the obligations placed upon him;
- (b) representatives of workers in the undertaking co-operate with the employer in the field of occupational safety and health;
- (c) representatives of workers in an undertaking are given adequate information on measures taken by the employer to secure occupational safety and health and may consult their representative organisations about such information, provided they do not disclose commercial secrets;
- (d) workers and their representatives in the undertaking are given appropriate training in occupational safety and health;
- (e) workers or their representatives and, as the case may be, their representative organisations in an undertaking, in accordance with national law and practice, are enabled to enquire into, and are consulted by the employer on, all aspects of occupational safety and health associated with their work; for this purpose technical advisers may, by mutual agreement, be brought in from outside the undertaking;
- (f) a worker reports forthwith to his immediate supervisor any situation which he has reasonable justification to believe presents an imminent and serious danger to his life or health; until the employer has taken remedial action, if necessary, the employer cannot require workers to return to a work situation where there is continuing imminent and serious danger to life or health.

**Article 20** states that there should be co-operation between management and workers and/or their representatives within the undertaking and this shall be an essential element of organisational and other measures taken in pursuance of **Articles 16 to 19** of this Convention.

#### **1.3.7 R164 Occupational Safety and Health Recommendation, 1981.**

**These Recommendations require employers (as appropriate for different branches of economic activity and different types of work):**

- (a) to provide and maintain workplaces, machinery and equipment, and use work methods, which are as safe and without risk to health as is reasonably practicable;
- (b) to give necessary instructions and training, taking account of the functions and capacities of different categories of workers;
- (c) to provide adequate supervision of work, of work practices and of application and use of occupational safety and health measures;
- (d) to institute organisational arrangements regarding occupational safety and health and the working environment adapted to the size of the undertaking and the nature of its activities;
- (e) to provide, without any cost to the worker, adequate personal protective clothing and equipment which are reasonably necessary when hazards cannot be otherwise prevented



or controlled;

- (f) to ensure that work organisation, particularly with respect to hours of work and rest breaks, does not adversely affect occupational safety and health;
- (g) to take all reasonably practicable measures with a view to eliminating excessive physical and mental fatigue;
- (h) to undertake studies and research or otherwise keep abreast of the scientific and technical knowledge necessary to comply with the foregoing clauses.

**Section 11:** Requires that whenever two or more undertakings engage in activities simultaneously at one workplace, they should collaborate in applying the provisions regarding occupational safety and health and the working environment, without prejudice to the responsibility of each undertaking for the health and safety of its employees. In appropriate cases, the competent authority or authorities should prescribe general procedures for this collaboration.

**Section 13:** Requires, as appropriate in regard to the activities of the undertaking and practicable in regard to size that provision should be made for:

- (a) the availability of an occupational health service and a safety service, within the undertaking, jointly with other undertakings, or under arrangements with an outside body;
- (b) recourse to specialists to advise on particular occupational safety or health problems or supervise the application of measures to meet them.

**Section 14:** States that employers should, where the nature of the operations in their undertakings warrants it, be required to set out in writing their [policy](#) and arrangements in the field of occupational safety and health, and the various responsibilities exercised under these arrangements, and to bring this information to the notice of every worker, in a language or medium the worker readily understands.

**Section 15 (1):** Employers should be required to verify the implementation of applicable standards on occupational safety and health regularly, for instance by environmental monitoring, and to undertake systematic safety audits from time to time.

**Section 15 (2):** States that employers should be required to keep such records relevant to occupational safety and health and the working environment as are considered necessary by the competent authority or authorities; these might include records of all notifiable occupational accidents and injuries to health which arise in the course of or in connection with work, records of authorisation and exemptions under laws or regulations to supervision of the health of workers in the undertaking, and data concerning exposure to specified substances and agents.

**Section 16 deals with the employee's duties and these include:**

- (a) ensuring that they take reasonable care for their own safety and that of other persons who may be affected by their acts or omissions at work;
- (b) complying with instructions given for their own safety and health and those of others and with safety and health procedures;
- (c) using safety devices and protective equipment correctly and do not render them inoperative;
- (d) reporting forthwith to their immediate supervisor any situation which they have reason to believe could present a hazard and which they cannot themselves correct;
- (e) reporting any accident or injury to health which arises in the course of or in connection with work.

### 1.3.8 Other Key Regulations.

As mentioned above, the Health and Safety at Work Act 1974 places a general duty on employers to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all their employees. This duty has been reinforced by more recent legislation which places a much more explicit duty on employers to assess and remove risks in their workplace.

**The European Framework Directive** - and the five sibling (daughter) directives which were adopted at the same time - were implemented in the UK at the beginning of 1993 as the set of regulations commonly known as the "six-pack".

These were:

[The Management of Health and Safety at Work Regulations 1999](#)

[The Manual Handling Operations Regulations 1992](#)

[The Health and Safety \(Display Screen Equipment\) Regulations 1992](#)

[The Provision and Use of Work Equipment Regulations 1998](#)

[The Workplace \(Health, Safety and Welfare\) Regulations 1992](#)

[The Personal Protective Equipment at Work Regulations 1992](#)

The key lies in the Management of Health and Safety at Work Regulations (sometimes referred to as 'the mother' and the five siblings as 'the daughters'). As their title suggests, health and safety must be managed and health and safety risks must be managed out of the workplace.

#### **The Management of Health and Safety at Work Regulations 1999.**

**Overview:** These Regulations set out broad general duties which apply to almost all work activities in Great Britain and offshore. They are aimed mainly at improving health and safety management and can be seen as a way of making more explicit what is required of employers under the Health and Safety at Work Act.

#### **Employers.**

#### **The Regulations impose the following requirements on employers:**

- Assess the risks to the health and safety of employees and to anyone else who may be affected by their work activity. This is so that the necessary preventive and protective measures can be identified. Employers with five or more employees have to record the significant findings of the assessment. (**Regulation 3**)
- Ensure that the principles of prevention are applied. In practice, start by avoiding risk and then assess, reduce and control any remaining risk that cannot be avoided. (**Regulation 4**).
- Make arrangements for putting into practice the health and safety measures that follow from the risk assessment. This will have to cover planning, organisation, control, monitoring and review of the protective and preventative measures. Again, employers with five or more employees will have to record their arrangements. (**Regulation 5**)
- Provide appropriate [health surveillance](#) for employees where the risk assessment shows it to be necessary. (**Regulation 6**)
- Appoint one or more competent people (by preference from within the organisation rather than an outside consultant) to help him in undertaking the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions. Where more than one [competent person](#) is appointed, the employer shall make arrangements for ensuring adequate co-operation between them. The competent person(s) must have time available to fulfil their functions and be provided with the necessary information. They must also have adequate means available at their disposal.

#### **(Regulation 7)**

- Identify danger areas and have procedures in place to deal with serious and imminent danger. Appoint competent persons to take charge and implement evacuation procedures. **(Regulation 8)**.
- Liaise with the external services when drawing up emergency procedures etc. **(Regulation 9)**.
- Provide employees with comprehensible information about specific health and safety matters. For example: the results of risk assessments and the introduction of control measures, the names of competent persons appointed to assist the employer and the names of persons placed in charge of evacuation procedures etc. **(Regulation 10)**.
- Co-operate with other employers sharing the work site. **(Regulation 11)**.
- Ensure comprehensible information and instruction is provided to other employers, the self-employed and employees of other employers working in the workplace. **(Regulation 12)**.
- Ensure that employees have adequate health and safety training and are capable enough at their jobs to avoid risks.
- Training required: on induction, when job responsibilities change, upon the introduction of new technology or new systems of work. Refresher training to be provided. All training to be within normal working hours. **(Regulation 13)**.
- Provide temporary workers with some particular health and safety information to meet special needs. **(Regulation 15)**.
- Carry out specific risk assessments relating to new or expectant mothers. **(Regulation 16)**.
- Obtain certificate from registered medical practitioner concerning new or expectant mothers. **(Regulation 17)**.
- Protection of young persons, including need to carry out specific risk assessment and to take into account their age, lack of maturity and inexperience etc. **(Regulation 19)**.

#### **Employees.**

#### **The Regulations:**

- Extend the duties on employees, as contained in **Section 7** of the Health and Safety at Work Act 1974, to follow health and safety instructions, to report serious and imminent danger and to point out any shortcomings in their employer's arrangements. These duties are limited by the training and instruction that the employee has received. **(Regulation 12)**.
- Also, new and expectant mothers need to notify their employer of their condition. **(Regulation 18)**.

The [suitable and sufficient](#) risk assessment is the cornerstone and it is essential that employers get that right as everything else flows from it.

#### **Key requirements of remaining 'six-pack' regulations.**

Like the Management Regulations (MHSWR99) these - as well as other specific legislation - will be discussed further and put into context within the relevant units of study.

#### **Manual Handling Operations Regulations.**

#### **Regulation 4 of these regulations requires employers to:**

- Avoid the need for employees to undertake any manual handling operations at work which involve a risk of their being injured;
- Make a suitable and sufficient assessment of the manual handling task to be undertaken;

- Take appropriate steps to reduce the risk of injury to employees.

In the context of the regulations 'manual handling' means any transporting or supporting of a [load](#), including lifting, putting down, pushing, pulling, carrying or moving it, by hand or bodily force. Injury means injury to any part of the body and not just the back.

The employer has to assess the task involved, the load itself, the environment in which the task is being carried out and the capabilities of the person concerned.

### **Health and Safety (Display Screen Equipment) Regulations.**

**Under these regulations employers must:**

- make a suitable and sufficient analysis of workstations and assess the health and safety risks (**Reg 2**);
- reduce the risks identified (**Reg 2**);
- ensure that workstations meet standards laid down (**Reg 3**);
- plan activities so that DSE work is interrupted by breaks or changes in activity which reduce the DSE workload (**Reg 4**);
- provide employees with an eye and eyesight test and corrective glasses (**Reg 5**);
- provide health and safety training (**Reg 6**);
- provide health and safety information (**Reg 7**).

The risks to health which employers must assess are described as musculoskeletal and postural problems, visual problems, fatigue and mental stress.

### **Provision and Use of Work Equipment Regulations.**

**Regulation 5 of these regulations is the most relevant; under it, employers must:**

- Ensure that work equipment is suitable for the purpose for which it is to be used;
- In selecting work equipment, have regard to the risks to health and safety;
- Ensure that work equipment is used only for operations and conditions for which it is suitable.

**Regulations 8 and 9** require employers to provide information, instruction and training to employees about how to use equipment safely.

Guidance to the regulations emphasises that the risk assessments made under the Management of Health and Safety at Work Regulations will help employers select suitable work equipment.

### **Workplace (Health, Safety and Welfare) Regulations.**

**These regulations apply to all aspects of the work environment and employers have duties to provide:**

- Effective ventilation (**Reg 6**);
- A reasonable temperature (**Reg 7**);
- Suitable and sufficient lighting (**Reg 8**);
- Sufficient space (**Reg 10**);
- Workstations and seating suitable for the person using them and for the work being done (**Reg 11**);
- Suitable and sufficient rest facilities (**Reg 25**).

### Personal Protective Equipment at Work Regulations.

These regulations cover the provision of [PPE](#) to employees. Under **Regulation 4**, employers must provide suitable PPE where health and safety risks cannot be controlled adequately by other means. PPE will not be suitable unless

- It is appropriate to the risks involved;
- It takes account of ergonomic requirements and the health of the individual;
- It fits the wearer correctly;
- It prevents the risk without increasing the overall risk.

### Question 10

The key to the European 6-pack lies in the \_\_\_\_\_ (Sometimes referred to as the mother of the 6-pack).

#### Multiple Choice (HP)

Answer 1:	The Manual Handling Operations Regulations 1992
Response 1:	
Jump 1:	This page
Answer 2:	The Management of Health and Safety at Work Regulations 1999
Response 2:	
Jump 2:	Next page
Answer 3:	The Provision and Use of Work Equipment Regulations 1998
Response 3:	
Jump 3:	This page
Answer 4:	The Workplace (Health, Safety and Welfare) Regulations 1992
Response 4:	
Jump 4:	This page

### 1.3.9 Approved Codes of Practice, Official Guidance and their Relationships and Relative Status.

We will first of all look at this in the UK context and then at examples from the rest of the world.

It is important to appreciate that the most important source of reference material used to identify the requirements of health and safety legislation and to ensure sound health and safety practices lies in the official Approved Codes of Practice, Codes of Practice and [Guidance Notes](#).

Every employer should keep a database of such literature as is relevant to his undertakings, and it should be used to implement the requirements of legislation. Note that codes and guidance are updated continually in the light of new knowledge, so it is necessary to keep abreast of changes and developments.

Approved Codes of Practice: The Health and Safety Executive has the [power](#) to approve and issue codes of practice which provide guidance on how to comply with the legal requirements of the Act and its related legislation. In order to issue a [code of practice](#), the Executive requires the



consent of the Secretary of State and prior to obtaining his consent, the Executive must consult with any government department or other appropriate body. **The [Robens Report](#) recognised the importance of the code of practice when it recommended that:**

"No Statutory Regulations should be made before detailed consideration has been given to whether the objectives might be adequately met by a non-statutory code of practice or standards".

**As a result of the Robens Committee recommendations, Section 16 of the HSWA has been put to good effect and many sets of regulations have an accompanying code of practice, e.g:**

- Safety Representatives and Safety Committees Regulations 1977.
- Management of Health and Safety at Work Regulations 1999.
- Workplace (Health, Safety and Welfare) Regulations 1992.
- Control of Substances Hazardous to Health Regulations 2002.
- Chemicals (Hazard Information & Packaging for Supply) (Amendment) Regulations 1999.

### **Distinction between Regulations and ACoPs.**

It is important not to confuse Regulations with Approved Codes of Practice (ACoPs). ACoPs do not lay down legal requirements, therefore you cannot be prosecuted for failing to comply with the guidance contained in them. However, contravention of the advice in a code of practice is admissible in evidence to prove a breach of the HSWA or its relevant provisions.

### **The introduction to ACoPs will contain the following statement:**

"Although failure to comply with any provision of the code is not in itself an offence, such a failure may be used in criminal proceedings as evidence that a person has contravened a regulation to which the provision relates. In such a case, however, it will be open to that person to satisfy the court that he has complied with the regulation in some other way."

A good example of this is illustrated by the Control of Substances Hazardous to Health Regulations and its [ACoP](#). The Regulations require employers to control the exposure of their employees to hazardous substances; however, they do not contain a detailed description of what are considered to be appropriate control measures. The ACoP, on the other hand, provides detailed advice concerning measures which can be used to control exposure to substances hazardous to health. ACoPs are published with the relevant Regulations as one document.

The practice of putting the detail of good practice into the ACoP is a sensible one. It is designed to curtail the amount of legislation and the many changes to legislation that would be required if such information had to be contained in the legislation itself. Changing the provision of an [Act of Parliament](#) is a lengthy and complicated process whereas the Commission can comparatively easily amend, withdraw, or replace a code of practice.

### **Guidance Notes.**

There is a further series of documents published by the Health and Safety Executive, known as Guidance Notes. The information contained in these is purely advisory and has no legal significance. Often a Guidance Note will accompany a code of practice, e.g. the Safety Representatives and Safety Committees Regulations 1977 has an accompanying code of practice and two Guidance Notes.

### **The Health and Safety Executive publish eight different sets of Guidance Notes as follows:**

1.	CS.	Chemical Series.
2.	EH.	Environmental Hygiene Series.

3.	GS.	General Series.
4.	MS.	Medical Series.
5.	PM.	Plant and Machinery.
6.	HS (G).	Health and Safety (Guidance) Series.
7.	HS (R).	Health and Safety (Regulations) Series.
8.	BPM.	Best Practical Means.

Although Guidance Notes are not mandatory, they are valuable documents based on a wealth of practical experience which indicate the way in which the inspectorate is likely to expect employers to operate. Many are free and can be obtained from your local HSE office.

### 1.3.10 Absolute and Qualified Duties: 'Practicable', 'Reasonably Practicable'.

#### Absolute Duties.

You will not find a duty in the HSW Act, or its associated legislation, phrased such that it is the absolute duty of X to do Y. What you will find, however, are certain duties which are not qualified by phrases such as 'so far as is practicable' and 'so far as is reasonably practicable'. Such duties are considered absolute and must be carried out.

The duty itself is usually expressed by the term 'shall'.

**For example, regulation 3 of The Management of Health and Safety at Work Regulations 1999 requires that:**

- Every employer shall make a suitable and sufficient assessment of:
  - a) the risks to the health and safety of his employees to which they are exposed whilst they are at work; and
  - b) the risks to the health and safety of persons not in his employment arising out of - or in connection with - the conduct by him of his undertaking, for the purpose of identifying the measures he needs to take to comply with the requirements and prohibitions imposed upon him by - or under - the relevant statutory provisions.

This is an example of an absolute duty.

#### Other examples include:

- **Section 2(3)** of the HSW Act, relating to the provision of health and safety policies.
- **Sections 2(4), 2(6) and 2(7) of the HSW Act\*, relating to:**
  - Recognition and consultation with safety representatives;
  - Establishment of safety committees.

\* These sections will be discussed later.

The ones relating to safety representatives link to the requirements contained in The Safety Representatives and Safety Committees Regulations 1977 and only apply when an independent trade union is recognised by the employer for negotiating purposes. In some cases, the word 'must' is used in place of 'shall'. With an absolute duty the requirement

must be complied with, even if that means that the activity can no longer be carried out.

### **Qualified duties.**

If absolute duties (often known as [strict liability](#)) are at the top of the hierarchy of duties, then qualified duties (where the word 'shall' is qualified by a phrase) follow a similar hierarchical structure.

**Although there are numerous examples of qualified duties, the two that candidates are required to know and understand for [NEBOSH](#) examination purposes are:**

- 'So far as is practicable'.
- 'So far as is reasonably practicable'.

These are discussed separately below.

**Together with absolute duties, they form the following hierarchy:**

- (i) It shall be the duty ... (absolute).
- (ii) It shall be the duty so far as is practicable ... (qualified).
- (iii) It shall be the duty so far as is reasonably practicable ... (qualified).

### **ii. So far as is practicable.**

Where a legal requirement introduces the phrase 'so far as is practicable', then the duty that it qualifies needs to be complied with in the light of current knowledge and invention. In other words, we need to ask whether it is physically possible to do it at the time.

**This judgement must be regardless of:**

- the time it would take to perform the duty;
- the trouble involved in performing the duty;
- the cost of performing the duty.

Also, the judgement must be kept under review. What may be physically impossible to perform today may, with developments in technology, become physically possible to perform tomorrow.

An important example of a duty qualified by the phrase 'so far as is practicable' is regulation 11 of The Provision and Use of Work Equipment Regulations 1998 (more on this later), which introduces a hierarchy of measures to prevent access to dangerous parts of machines, each step in the hierarchy being qualified.

### **iii. So far as is reasonably practicable.**

This qualification requires a balance to be made of the total cost of performing the duty, on the one hand, and the risks to be reduced by performing the duty, on the other hand. This calculation has to be made before an accident occurs.

Where the risks are very high, then the duty must be performed irrespective of the cost. However, where the risks are significantly reduced and, due to the law of diminishing returns, the cost of reducing the risks still further are disproportionately high, then the duty is not deemed to be reasonably practicable to perform.

In considering the costs involved, no allowance can be made for the size, nature or profitability of the business concerned. It is the risk which determines whether or not the cost involved is justified.

**All of these points were summed up nicely in a leading [case law](#) decision in which the**

### Judge stated that:

"Reasonably practicable is a narrower term than physically possible and implies that a computation must be made in which the [quantum of risk](#) is placed in one scale and the sacrifice, whether in money, time or trouble involved in the measures necessary to avert the risk is placed in the other; and that, if it is shown that there is a gross disproportion between them, the risk being insignificant in relation to the sacrifice, the person upon whom the duty is laid discharges the burden of proving that compliance was not reasonably practicable. This computation falls to be made at a point of time anterior to the happening of the incident complained of."

### Edwards v National Coal Board (1949).

As we shall see in the module that deals with the HSW Act, most - but not all - of the Act is qualified by the term so far as is reasonably practicable.

**A note of caution:** The main sections of the HSW Act are covered in another module, but at this stage we need to be aware of **the requirement stated in section 40 with regard to qualified duties\***:

"In any proceedings for an offence under any of the relevant statutory provisions consisting of a failure to comply with a duty or requirement to do something so far as is practicable or so far as is reasonably practicable, or to use the [best practicable means](#) to do something, it shall be for the accused to prove (as the case may be) that it was not practicable or not reasonably practicable to do more than was in fact done to satisfy the duty or requirement, or that there was no better practicable means than was in fact used to satisfy the duty or requirement."

### The Health and Safety at Work etc Act 1974.

This is important because it reverses one of the fundamental principles of English law, that the accused is innocent until proven guilty.

### Reasonably practicable requirements – ILO.

The ILO Occupational Safety and Health Convention C155 uses this term for requirements at employer levels, for example:

Part IV. Action at the level of the undertaking.

#### Article 16:

- 1. Employers shall be required to ensure that, **so far as is reasonably practicable**, the workplaces, machinery, equipment and processes under their control are safe and without risk to health.
- 2. Employers shall be required to ensure that, **so far as is reasonably practicable**, the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken.
- 3. Employers shall be required to provide, where necessary, adequate protective clothing and protective equipment to prevent, **so far as is reasonably practicable**, risk of accidents or of adverse effects on health.

### Reasonable .

Example of reasonable requirement on a national level is the Malaysian Occupational Safety and Health Act 1994 which sets out requirements for employees at work in Section 24

### General duties of employees at work.

#### 24. (1): It shall be the duty of every employee while at work:

- (a) To take **reasonable** care for the safety and health of himself and of other persons who may be affected by his acts or omissions at work;

### Question 11

\_\_\_\_\_ is a narrower term than physically possible and implies that a computation must be made in which the quantum of risk is placed in one scale and the sacrifice on the other (time, money, effort), if it is shown that there is a gross disproportion between them, the risk being insignificant in relation to the sacrifice, then the duty is discharged.

### Multiple Choice (HP)

Answer 1: so far as is reasonably practicable

Response 1:

Jump 1: Next page

Answer 2: absolute duty

Response 2:

Jump 2: This page

Answer 3: so far as is practicable

Response 3:

Jump 3: This page

### 1.3.11 The Roles and Functions of External Agencies.

In this section, we will be discussing the roles and functions of external agencies such as the Health and Safety Executive (HSE), local authorities, fire authorities, [Environment Agency](#)/Scottish Environmental Protection Agency and insurance companies

Enforcement of health and safety regulations is dealt with under **Section 18 of HSWA**. Enforcement authorities are the Health and Safety Executive itself, local authorities and the Environment Agency. Enforcement is mainly the responsibility of the HSE or a local authority, but the section provides for enforcement responsibilities to be assigned to other authorities, e.g. control of emission into the atmosphere is the responsibility of the Department of the Environment, Food and Rural Affairs, which would be responsible for enforcing the provisions of the Health and Safety (Emissions into the Atmosphere) Regulations 1983.

The main division of responsibility for enforcement is between the HSE itself and local authorities. It helps to know which authority is responsible for which type of industrial or commercial activity. As a general rule, the HSE is the enforcing authority for industrial premises and the local authority is responsible for commercial premises within its area. There is an exception (as always) to the general rule. Neither the HSE nor the local authority can enforce provisions in respect of its own premises, so they inspect each other's premises.

The arrangements for the division of enforcement responsibilities are contained in the Health and Safety (Enforcing Authority) Regulations 1998.

**The following lists indicate the work and activities which are enforced by each enforcing authority:**

#### Activities Enforced by the HSE.

1. Any activity in a mine or quarry (other than abandoned).
2. Any activity in a fairground.



3. Any activity in premises in relation to broadcasting, recording or filming.

**4. The following activities carried on at premises by persons who do not normally work in the premises:**

**(a) Construction work if:**

- regulation 7(1) of the Construction (Design and Management) Regulations 2007 (which requires projects which include or are intended to include construction work to be notified to the Executive) applies to the project which includes the work; or
- the whole or part of the work contracted to be undertaken by the [contractor](#) at the premises is to the external fabric or other external part of a building or structure; or
- it is carried out in a physically segregated area of the premises, the activities normally carried out in that area have been suspended for the purpose of enabling the construction work to be carried out, the contractor has authority to exclude from that area persons who are not attending in connection with the carrying out of the work, and the work is not the maintenance of [insulation](#) on pipes, boilers or other parts of heating or water systems or its removal from them.

(b) The installation, maintenance or repair of any [gas](#) system, or any work in relation to a gas fitting.

(c) The installation, maintenance or repair of electricity systems.

(d) Work with ionising radiations except work in one or more of the categories set out in Schedule 3 to the Ionising Radiations Regulations 1999.

5. The use of ionising radiations for medical exposure.

6. Any activity in premises occupied by a radiography undertaking in which any work with ionising radiations is performed.

7. Agricultural activities, and any activity at an agricultural show, which involves the handling of livestock or the working of agricultural equipment.

8. Any activity on board a sea-going ship.

9. Any activity in relation to a ski slope, ski lift, ski tow or cable car.

10. Fish, maggot and game breeding except in a zoo.

11. Any activity in relation to a pipeline within the meaning of regulation 3 of the Pipelines Safety Regulations 1996.

12. The operation of a railway.

In addition the HSE is the enforcing authority for the following:

- A county council.
- Any other local authority.
- A parish council.
- A police authority or the Receiver of the Metropolitan Police.
- A fire authority.
- A headquarters designated for the purposes of the International Headquarters and De-

fence Organisation Act 1964.

- A service authority of a visiting force within the meaning of the Visiting Forces Act 1952.
- The United Kingdom Atomic Energy Authority.
- The Crown.

### **General Functions of the HSE.**

It is the general duty of the Executive to do such things and make such arrangements as it considers appropriate for the general purposes of the Act. In particular, it is required:

- to assist and encourage persons concerned with matters relevant to the general purposes of Part I of the Act to further those purposes;
- to make arrangements for research and the publication of the findings of such research, the provision of training and information in connection with those purposes, and to encourage others to do the same;
- to make arrangements to ensure that government departments, employers and employees (and organisations representing them) and other persons concerned, are provided with an information and advisory service;
- to submit from time to time particulars of what it proposes to do for the purpose of performing its functions.

### **1.3.12 Activities Enforced by Local Authorities.**

- 1. The sale of goods, or the storage of goods for retail or wholesale distribution, except:
  - (a) at container depots where the main activity is the storage of goods in the course of transit to or from dock premises, an airport or a railway;
  - (b) where the main act is the sale or storage for wholesale distribution of any substance or preparation dangerous for supply;
  - (c) where the main activity is the sale or storage of water or sewage or their by-products, or natural or town gas; and where the main activity carried on in the premises is the sale and fitting of motor car tyres, exhausts, windscreens or sun-roofs, the main act shall be deemed to be the sale of goods.
- 2. The display or demonstration of goods at an exhibition for the purposes of offer or advertisement for sale.
- 3. Office activities.
- 4. Catering services.
- 5. The provision of permanent or temporary accommodation including the provision of a site for caravans.
- 6. Consumer services provided in a shop except dry cleaning or radio and television repairs.
- 7. Cleaning (wet or dry) in coin operated units in launderettes and similar premises.
- 8. The use of a bath, sauna or solarium, massaging, hair transplanting, skin piercing, manicuring or other cosmetic services and therapeutic treatments, except where they are carried out under the supervision or control of a registered medical practitioner, a dentist registered under the Dentists Act 1984, a physiotherapist or an osteopath.
- 9. The practice or presentation of the arts, sports, games, entertainment or other cultural or recreational activities except where the main activity is the exhibition of a cave to the public.
- 10. The hiring out of pleasure craft for use on inland waters.
- 11. The care, treatment, accommodation or exhibition of animals, birds or other creatures, except where the main activity is horse breeding or horse training at a stable, or is an agricultural activity or veterinary surgery.

- 12. The activities of an undertaker, except where the main activity is embalming or the making of coffins.
- 13. Church worship or religious meetings.
- 14. The provision of car parking facilities within the perimeter of an airport.
- 15. The provision of child care, or playgroup or nursery facilities.

The responsibility for enforcement of any of the relevant statutory provisions in any particular premises may be transferred, by agreement, from the Executive to the local authority and vice versa.

Local Authority Trading Standards Departments enforce the Personal Protective Equipment Regulations. The HSE can only take action under Section 6 of HSWA.

### **The Environment Agency.**

The Environment Agency (EA) / Scottish Environmental Protection Agency ([SEPA](#)) are responsible for the enforcement of Section 5 of HSWA, including notices relating to [pollution](#). It deals with [Integrated Pollution Control \(IPC\)](#) which is applied to the top tier of most polluting processes or substances (special waste and [controlled waste](#)). Local authorities are responsible for some aspects of air pollution control.

The HSE and the EA form the joint competent authority for enforcing the Control of [Major Accident Hazards Regulations 1999](#).

### **The Employment Medical Advisory Service (EMAS).**

This was established under the Factories Act 1961, as amended by the Employment Medical Advisory Service Act 1972, and HSWA. EMAS is responsible for periodic health surveillance of workers in some hazardous processes as required by Regulations.

EMAS is an integral part of HSE and is staffed by specialist occupational health professionals, both doctors and nurses. They are available to give expert advice on medical matters relating to work a wide range of organisations and individuals. This includes employers, employees, trade unions, all Directorates in HSE, Local Authority environmental health officers and also other health care professionals. Employment Medical Advisers have similar powers to HSE inspectors.

## **1.3.13 The Powers of Inspectors Under the HSW Act.**

Enforcement of Health and Safety at work legislation is governed by a series of measures, the principal of which is The Health and Safety at Work Act 1974. Both the Act and Regulations made under the Act can provide for enforcement.

Enforcement of Health and Safety at work legislation is the responsibility of various authorities including the Secretary of State, The Health and Safety Executive (HSE), local authorities, fire authorities, the Environment Agency and the Scottish Environment Protection Agency. We shall concentrate on the enforcement powers of the HSE and local authorities.

### **The HSE was established by section 10 of HSAWA.**

The HSE consists of three persons, one of whom is appointed, with the approval of the Secretary of State, to be the Director General of the HSE.

In general terms, the HSE is a policy body and the enforcement arm. The HSE will decide if new legislation will be required to implement European Directives and will target industries and activities which need to be concentrated upon. In addition, the HSE has the power to produce and is-

sue Approved Codes of Practice.

In order to perform its enforcement role, the HSE has to appoint specialist and general inspectors to work on its behalf. These inspectors are granted certain rights under the HSW Act; inspectors are issued with warrant cards by the HSE.

In addition, local authority environmental health inspectors carry out certain roles on behalf of the HSE. In general, HSE inspectors enforce industrial premises and fairgrounds, whereas local authority inspectors enforce commercial premises, retail premises and food premises.

The above division of enforcement responsibility is provided for in section 18 of the Act with the precise division of responsibility being contained in The Health and Safety (Enforcing Authority) Regulations 1989.

### **Powers of inspectors.**

The appointment of inspectors is governed by section 19 of the Act. **The powers of inspectors are contained in section 20; these can briefly be outlined as follows:**

- To enter premises at any time they deem to be reasonable.
- To take along a police constable if they believe they will be obstructed.
- To take along another person and any equipment (perhaps a specialist inspector).
- To examine and investigate.
- To direct that premises and anything within them be left undisturbed.
- To take measurements and photographs and make recordings.
- To take samples.
- To order the dismantling or testing of any article or substance which appears to have caused danger (only damaging or destroying it where necessary).
- To take possession of and detain an article or substance (for examination, to ensure it is not tampered with and to ensure it is available in evidence for any proceedings).
- To require any person to answer questions and to sign a declaration of the truth of the answers given.
- To require the production of books and documents for the purpose of inspection and copying.
- To require any necessary facilities and assistance.
- Any other powers which are necessary.

Under section 25 of the Act, an inspector has the power to render harmless an article or substance which is a cause of imminent danger of serious personal injury.

### **Enforcement notices.**

**It is important to be clear about the difference between the two types of enforcement notice that can be issued:**

- Improvement notices.
- Prohibition notices.

There is a popular misconception that these are issued in a hierarchical way, with an [improvement notice](#) being issued first, followed by a prohibition notice if the improvement notice is not complied with.

**This is totally incorrect.**

Each notice has a strict criteria related to its issue to which the inspector must conform; the

reason for the issue of the notice being completed on the notice itself. The following are the key points to remember:

**Improvement notices (section 21 HSW Act):**

- Contravention of a relevant statutory provision at the time of issue.
- Contravention in the past which is likely to be continued or repeated.
- An appeal against the issue of the notice must be made to an [industrial tribunal](#) within 21 days of the issue of the notice.
- The notice is suspended while the appeal is being heard.

**Prohibition notices (section 22 HSW Act):**

- A risk of serious personal injury/illness.
- An appeal against the issue of the notice must be made to an industrial [tribunal](#) within 21 days of the issue of the notice.
- The notice stays in effect during the appeal.

**Summary offences, indictment.**

Section 33 of the Act outlines the range of offences which can be tried either summarily or by indictment\*.

**The main points can be briefly outlined as follows:**

**Summary offences:**

- Contravening an investigation.
- Contravening a requirement imposed by an inspector.
- Preventing someone answering an inspector's questions.
- Intentionally obstructing an inspector.
- Impersonating an inspector.

**Either way offences (summary or indictment):**

- Failing to carry out sections 29 of the Act.
- Contravening any regulation made under the Act.
- Contravening an enforcement notice.
- Intentionally making false statements.
- Making a false entry in a document etc.
- Failing to comply with a Court order.
- Forging a document.
- Offences related to licences, explosives and information to be provided to inspectors etc.

**The Health and Safety (Offences) Act 2008.**

The Health & Safety (Offences) Act 2008 does not create any new offences, but raises the maximum penalties available to the courts in respect of many health and safety offences.

It includes significantly increased powers to imprison, by altering the penalty framework set out in the Health and Safety at Work etc Act 1974.



It came into force on January 16, 2009 and applies to England, Wales, Scotland and Northern Ireland.

The Health and Safety at Work etc Act 1974 is considered by many to be too cautious with regards to criminalising offenders. Custodial sentences were only available to the courts for the most serious offences.

The new law reflects an [expectation](#) that health and safety offences should be taken more seriously and given priority by companies.

The Act does not impose new duties upon businesses. However, it increases the seriousness of a breach. Previously, the majority of breaches of the Health and Safety at Work etc Act 1974 were only punishable by financial penalties. The new Act changes this.

Most offences, including a breach of section 2, 3, 7, 37 or any of the regulations made under the Health and Safety at Work etc Act will also carry a sentence of a term of imprisonment of 12 months for a conviction in the [magistrates'](#) court and two years for conviction in the [Crown Court](#).

The Act also increases the maximum fine which may be imposed by a magistrates' court for most health and safety offences to £20,000 from £5,000. Fines imposed by crown courts remain unlimited.

The Act does not apply to offences committed before it came into force. Prosecutions for health and safety breaches can be brought alongside prosecutions under the [Corporate Manslaughter](#) Act.

**It is intended that the Act will focus on breaches such as:**

- Serious neglect.
- Reckless disregard for health and safety requirements.
- Repeated breaches which cause significant risks.
- False information.
- Serious risks that have been deliberately created to increase profit.

Nothing can replace the experience of visiting a Court when a health and [safety case](#) is taking place and observing the law which you have read about being put in action. If you have time and a case is coming up, to help your understanding please try to attend.

#### **1.3.14 C155 Occupational Safety and Health Convention, 1981 - Competent Authority's Duties.**

**Article 9 of C155 Occupational Safety and Health Convention, 1981 states that:**

- 1. The enforcement of laws and regulations concerning occupational safety and health and the working environment shall be secured by an adequate and appropriate system of inspection.
- 2. The enforcement system shall provide for adequate penalties for violations of the laws and regulations.

Article 10 states that measures shall be taken to provide guidance to employers and workers so as to help them to comply with legal obligations.

**Article 11 states that the competent authority or authorities shall ensure that the following**

**functions are progressively carried out:**

- (a) the determination, where the nature and degree of hazards so require, of conditions governing the design, construction and layout of undertakings, the commencement of their operations, major alterations affecting them and changes in their purposes, the safety of technical equipment used at work, as well as the application of procedures defined by the competent authorities;
- (b) the determination of work processes and of substances and agents, the exposure to which is to be prohibited, limited or made subject to authorisation or control by the competent authority or authorities; health hazards due to the simultaneous exposure to several substances or agents shall be taken into consideration;
- (c) the establishment and application of procedures for the notification of occupational accidents and diseases, by employers and, when appropriate, insurance institutions and others directly concerned, and the production of annual statistics on occupational accidents and diseases;
- (d) the holding of inquiries, where cases of occupational accidents, occupational diseases or any other injuries to health which arise in the course of or in connection with work appear to reflect situations which are serious;
- (e) the publication, annually, of information on measures taken in pursuance of the policy referred to in Article 4 of this Convention and on occupational accidents, occupational diseases and other injuries to health which arise in the course of or in connection with work;
- (f) the introduction or extension of systems, taking into account national conditions and possibilities, to examine chemical, physical and biological agents in respect of the risk to the health of workers.

**1.3.15 International standards and conventions.**

**The International Labour Organisation (ILO).**

The International Labour organisation (ILO) is a specialised agency of the United Nations that deals with labour issues. Its headquarters are in Geneva. Founded in 1919, it was formed through the negotiations of the Treaty of Versailles, and was initially an agency of the League of Nations. It became a member of the UN system after the demise of the League and the formation of the UN at the end of World War II. Its Constitution, as amended to date, includes the Declaration of Philadelphia (1944) on the aims and purposes of the organisation. Its secretariat is known as the International Labour Office and its current Director-General is Juan Somavia (since 1999).

As stated by its Director-General, the primary goal of the ILO today is to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity. In working towards this goal, the organisation seeks to promote employment creation, strengthen fundamental principles and rights at work, improve social protection and promote social dialogue as well as provide relevant information, training and technical assistance.

**At present, the ILO's work is organised into four thematic groupings or sectors:**

- (1) Standards and fundamental principles and rights at work;
- (2) Employment;
- (3) Social Protection; and
- (4) Social Dialogue.

**International Labour Conference.**

The International Labour Conference is a yearly event, held each June in Geneva and is hosted by the International Labour Organisation. The conference makes decisions on the organisation's general policy, work programme and budget and creates conventions and recommendations that are adopted by majority decision.

Member states are represented at the conference by four delegates; two government delegates, an employer delegate and a worker delegate. All delegates have individual voting rights, and all votes are equal, regardless of the population of the delegate's member state. The employer and worker delegates are normally chosen in agreement with the most representative national organisations of employers and workers. Usually, the worker delegates coordinate their voting, as do the employer delegates.

The ILO has a specialist programme addressing child labour, the International Programme on the Elimination of Child Labour (IPEC).

#### **HIV/AIDS.**

Under the name ILOAIDS, the ILO created the Code of Practice on HIV/AIDS and the world of work as a document providing principles for "policy development and practical guidelines for programmes at enterprise, community and national levels."

#### **These include:**

- Prevention of HIV;
- Management and [mitigation](#) of the impact of AIDS on the world of work;
- Care and support of workers infected and affected by HIV/AIDS;
- Elimination of stigma and discrimination on the basis of real or perceived HIV status.

#### **Nobel Peace Prize.**

The organisation received the Nobel Peace Prize in 1969.

#### **International Training Centre.**

The ILO maintains an International Training Centre in Turin, Italy.

#### **Personnel Policy.**

The International Labour organisation is an agency belonging to the United Nations system, and as such shares common conditions of employment with other agencies

#### **Adoption of Conventions .**

One of the principal functions of the ILO involves setting international labour standards through the adoption of Conventions and Recommendations covering a broad spectrum of labour-related subjects and which, together, are sometimes referred to as the International Labour Code.

Adoption of a Convention by the International Labour Conference allows governments to ratify it, and the Convention then becomes a treaty in international law when a specified number of governments have ratified it.

#### **Ratification of Conventions.**

The coming into force of a Convention results in a legal obligation to apply its provisions by the nations that have ratified it. Ratification of a Convention is voluntary. Conventions that have not been ratified by member states have the same legal force as Recommendations. Governments are required to submit reports detailing their compliance with the obligations of the Conventions they have ratified. Every year, the International Labour Conference's Committee on the Application of Standards examines a number of alleged breaches of international labour standards. In recent years, one of the member states that has received the most attention is Myanmar/Burma, as the country has repeatedly been criticised for its failure to protect its citizens against forced labour exacted by the army.

All adopted ILO Conventions are considered international labour standards, regardless of how many national governments have ratified them. The topics covered by them cover a wide range of issues, from freedom of association to health and safety at work, working conditions in the maritime sector, night work, discrimination, child labour and forced labour.

#### **Recommendations .**

Recommendations do not have the binding force of Conventions, and are not subject to ratification by member countries. Recommendations may be adopted at the same time as Conventions to supplement the latter with additional or more detailed provisions. The intent of these recom-

mendations is often to more precisely detail the principles of related Conventions.

In other cases recommendations may be adopted separately, and address issues not covered by, or unrelated to any particular Convention.

### 1.3.16 Sources of information on national standards.

We will shortly be ending this first unit. No doubt you will have found there is a lot to take in; as such we are now going to guide you to further sources of international information which is a part of your syllabus and which are also useful for study and work-related research.

**The International Labour Organisation (ILO)** <http://www.ilo.org/>.

The International Labour Organisation (ILO) is a UN body with a number of functions. One of these is to establish and maintain international standards on labour and social issues. These are issued in the form of **Conventions** and **Recommendations**. Guidance material is also available in codes of practice and reference manuals. Full details of significant ILO publications on all kinds on health, safety and environmental matters can be found at [www.ilo.org/public](http://www.ilo.org/public) (most documents can be downloaded free of charge).

About seventy of the Conventions and Recommendations deal with occupational health and safety. The conventions are open to be ratified (agreed to) by UN Member States, and once they have been ratified, binding obligations to comply are accepted. The text of each Convention states the means by which its provisions are expected to be applied. Those Member States ratifying the various Conventions are obliged to report regularly on progress, and complaints can be made by various organisations representing workers and employers as well as governments of other ratifying Member States where non-compliance is alleged. Conventions that have not been ratified have the status of Recommendations.

In the case of Recommendations, Member States have no specific obligations other than to notify their existence to their legislatures and to report on what happens as a result. Both Standards and Recommendations are used frequently as models for legislation or amendments and also by labour and employer organisations to support their points of view.

**Codes of Practice** and **Guidelines** are frequently published, having been drawn up at tripartite meetings of experts and following approval by the ILO Governing Body. The reader's attention is drawn particularly to *Guidelines on Occupational Safety and Health Management Systems*, which was sent to the Governing Body on 13 June 2001. The document's development and arguments about its contents are detailed in a report that can be obtained from the ILO website.

**ILO documentation falls into four wide categories:**

- Guiding policies for action.
- Protection in given branches of economic activity.
- Protection against specific hazards and risks.
- Measures of protection.

To give a fuller overview of the ILO's work, please view this five-minute video clip given by Dr. Jukka Takala, Director of ILO SafeWork >

[http://audio.ilo.org/ramgen/ilo/protection/safework/Dr\\_Takala\\_in\\_English.rm?usehostname](http://audio.ilo.org/ramgen/ilo/protection/safework/Dr_Takala_in_English.rm?usehostname)

**(USA) Occupational Safety and Health Administration (OSHA)** <http://www.osha.gov>.

OSHA's mission is to assure the safety and health of America's workers by setting and enforcing standards, providing training, outreach, and education, establishing partnerships, and encouraging continual improvement in workplace safety and health.

OSHA and its state partners have approximately 2,100 inspectors, plus complaint discrimination



investigators, engineers, physicians, educators, standards writers and other technical and support personnel spread over more than 200 offices throughout the country. This staffing establishes protective standards, enforces those standards and reaches out to employers and employees through technical assistance and consultation programmes.

**European Agency for Safety and Health at Work (EU)** <http://agency.osha.eu.int/>.

This Agency, based in Bilbao, aims to make Europe's workplaces safer, healthier and more productive.

The European Agency acts as a catalyst for developing, collecting, analysing and disseminating information that improves the state of occupational safety and health in Europe. The Agency is a tripartite European Union organisation and brings together representatives from three key decision-making groups in each of the EU's Member States' governments, employers' and workers' organisations.

**Health and Safety Executive (UK)** <http://www.hse.gov.uk>.

Britain's Health and Safety Executive (HSE) is responsible for the regulation of almost all the risks to health and safety arising from work activity in Britain.

The HSE's mission is to protect people's health and safety by ensuring risks in the changing workplace are properly controlled. They look after health and safety in nuclear installations and mines, factories, farms, hospitals and schools, offshore gas and oil installations, the safety of the gas grid and the movement of dangerous goods and substances, railway safety and many other aspects of the protection both of workers and the public. Local authorities are responsible to HSE for enforcement in offices, shops and other parts of the services sector.

**Worksafe (Western Australia)** <http://www.safetyline.wa.gov.au>.

WorkSafe is a division of the Department of Consumer and Employment Protection, the Western Australian State Government agency responsible for the administration of the *Occupational Safety and Health Act 1984*.

While WorkSafe has a major regulatory role, it also provides information to industry and the community to assist in the prevention of work-related injury and disease. While many of the information products are in a traditional printed form, increasingly the Internet is used as a cost-effective way to deliver work safety and health information. WorkSafe's Internet service, [www.docep.wa.gov.au](http://www.docep.wa.gov.au), is one of the leading services of its kind in the world and provides ready access to high quality information on occupational safety and health.

**Others (but not exhaustive; if you would like to add more, please do so in the forums).**

**Sweden - National Institute for Working Life (Arbetslivsinstitutet)** - <http://www.arbetslivsinstitutet.se/en/>

This government institute conducts research and information activities concerning labour protection matters, including occupational safety and health. Bilingual site (Swedish and English).

**Italy - National Institute of Occupational Safety and Prevention (Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro, ISPESL)** - <http://www.ispesl.it/>

Public institution devoted to research, information, training and advice on legislation in the area of occupational safety and health. Bilingual site (Italian and English).

**France - National Research and Safety Institute (Institut National de Recherche et de Scurit, INRS)** - <http://www.inrs.fr/>

National agency engaged in research, education and workplace assistance in the field of occupational safety and health. Bilingual site (French and English).

**Germany - Federal Institute for Occupational Safety and Health (FIOSH) (Bundesanstalt fr Arbeitsschutz und Arbeitsmedizin (BAuA))** - <http://www.baua.de/eindex.htm>

Federal agency charged with research, the finding of practical solutions, and information in the field of occupational safety and health, as well as with workplace health promotion in Germany. Bilingual site (German and English).

**Finland - Finnish Institute of Occupational Health (FIOH)** - <http://www.occuphealth.fi/e/>



This government institute is engaged in research and advisory services, training and the dissemination of information. Trilingual site (Finnish, Swedish, and English).

Norway - Arbeidstilsynet / Norwegian Labour Inspection Authority - <http://www.arbeidstilsynet.no/>  
National occupational safety and health agency. Bilingual site (Norwegian and English).

Ireland - Health and Safety Authority (HSA) - <http://www.HSA.ie/>

The HSA has overall responsibility for the administration and enforcement of health and safety at work in Ireland. It monitors compliance with legislation at the workplace and can take enforcement action (including prosecutions), is an expert centre for information and advice to employers, employees and self-employed, and it promotes education, training and research.

Norway - Statens arbeidsmiljøinstitutt [STAMI] (National Institute of Occupational Health) - <http://www.stami.no/>

Research institute contributing to increased knowledge on - and practical applications of - occupational health based on the biomedical and natural sciences. Bilingual site (Norwegian and English).

Poland - Instytut Medycyny Pracy (Nofer Institute of Occupational Medicine) - <http://www.imp.lodz.pl/>

Institute of research into occupational medicine and public health, located in Lodz. Bilingual site (Polish and English).

Denmark - Arbejdsmiljøinstituttet [AMI] (National Institute of Occupational Health) - <http://www.ami.dk/>

Advisory and research organisation devoted to the furthering of healthy workplaces. Bilingual site (Danish and English).

Poland - Central Institute for Labour Protection (Centralny Instytut Ochrony Pracy, CIOP) - <http://www.ciop.pl/>

The Institute is a leading scientific and research institution in Poland dealing with occupational safety and health and labour condition issues. Its principal activities include research, certification, training, information collection and dissemination, and consultancy. Bilingual site (English and Polish).

Portugal - Institute for the Development and Inspection of Working Conditions (Instituto de Desenvolvimento e Inspeção das Condições de Trabalho, IDICT) - <http://www.idict.gov.pt/>

National institute devoted to research, promotion, information and training in the field of working conditions, including occupational safety and health. Site is mostly in Portuguese, with some English.

Austria - Allgemeine Unfallversicherungsanstalt (AUVA) (Austrian Social Insurance for Occupational Risk) - <http://www.auva.or.at/>

Quasi-government agency responsible for workers' compensation in Austria. It also engages in activities related to prevention, first aid, medical care of accident victims, rehabilitation, research, and information dissemination. Site mostly in German, but with some information in English as well.

Germany - German Federation of Institutions for Statutory Accident Insurance and Prevention (Hauptverband der gewerblichen Berufsgenossenschaften, HVGB) - <http://www.hvbg.de/e/pages/index.html>

Federation of 35 sector-based institutions charged with workers' compensation and associated preventive activities in the workplace in Germany. Bilingual site (German and English).

Hungary - Munkavédelmi Kutató Alapítvány (Public Foundation for Research on Occupational Safety) - <http://www.mkk.org.hu/>

Agency responsible for research, information, training, and workplace evaluation activities related to occupational safety and health. Bilingual site (Hungarian and English).

Czech Republic - Center of Industrial Hygiene and Occupational Diseases - [http://www.szu.cz/chpnp/index\\_en.php](http://www.szu.cz/chpnp/index_en.php)

National institute devoted to research, consultation, information, and training activities in the field

of occupational health. Bilingual site (Czech and English).

Malta - Occupational Health and Safety Authority - <http://www.ohsa.org.mt/>

Contains notifications, publications, courses and contact details.

Russia - Centre for Industrial Labour Safety and Social Partnership and Occupational Training - [http://www.cotspb.ru/english/En\\_Default.htm](http://www.cotspb.ru/english/En_Default.htm)

Government institution based in St Petersburg.

**Its tasks include:**

- occupational safety training;
- provision of advice for the development of regulation of social and labour relations;
- provision of information for employers on safety and health matters;
- policy development for other OSH centres.

**Bilingual site (Russian and English).**

Netherlands - TNO Work and Employment - <http://www.arbeid.tno.nl/homepage.html>

This quasi-governmental institute offers research, consultancy, training and information services in labour-related fields, including occupational safety and health. Bilingual site (Dutch and English).

Latvia - Institute of Occupational and Environmental Health (IOEH) - <http://home.parks.lv/ioeh/>

The main purpose of this government institute is the generation and dissemination of information on the interaction of working and general environment and human health as well as provision of training in the field of occupational and environmental health. Bilingual site (Latvian and English).

Belgium - Institut pour la prvention, la protection et le bien-tre au travail (Institute for Prevention, Protection and Welfare at Work) - <http://www.prevent.be/net/net01.nsf/>

Non-governmental, non-profit institution engaged in the dissemination of safety and health information, the promotion of safety and health in workplaces, and the provision of advice in the field to enterprises and workers. Bilingual site (Dutch and French).

**Even more can be found here:**

[http://www.google.com/Top/Health/Occupational Health and Safety/Government Agencies/](http://www.google.com/Top/Health/Occupational%20Health%20and%20Safety/Government%20Agencies/).

**1.3.17 Example Exam Questions.**

In order to assist you with your exams and to get a better idea of what types of questions may arise concerning this lesson, please see below some example past questions based around the content.

- **Outline the main health and safety responsibilities of employers.**
- **Identify actions an enforcement authority might take if it finds that an employer is not meeting its responsibilities.**
- **Identify possible costs to an organisation following an accident in the workplace.**
- **Identify employer's common law duty of care.**
- **Outline the differences between Regulations and Approved Codes of Practice giving an example of each.**
- **Outline the role and activities of the HSE.**

(These questions are here just for reference so there are no answers provided).